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ABSTRACT

The communication theory and methodology section of the Proceedings contains the following 20 papers: "Political Adwatches and the Third-Person Effect" (Ekaterina Ognianova and others); "Understanding Adopters of Audio Information Services" (Kimberly A. Neuendorf and others); "A Principal-Agent Approach to the Study of Media Organizations: Toward a Theory of the Media Firm" (Philip Napoli); "Self-Perceived Knowledge and the Third-Person Effect: Media Influence During the O.J. Simpson Trial" (Michael B. Salwen and Paul D. Driscoll); "A Dialogue with the State" An Ellulian Conception of Media Hegemony and Human Agency" (Rick Clifton Moore); "Third-Person Perception and Support for Censorship of Sexually Explicit Visual Content: A Korean Case" (Changhyun Lee and Seungchan Yang); "Arousing Messages: Reaction Time, Capacity, Encoding" (Annie Lang and Robert F. Potter); "The Media and Voter Turnout: An Investigation of People's Willingness to Vote in the 1992 Presidential Election" (Nojin Kwak); "Amount of Invested Mental Effort and Learning from Media: A Conceptual Review" (Tom Kelleher); "Situational Influence of Political Involvement on Information Seeking: A Field Experiment" (Stacey Frank Kanihan and Steven H. Chaffee); "Let's Talk about What We're Watching: Parental Behavior towards Children's Gender and Age Regarding Television Viewing" (Kristine Kay Johnson and others); "A Model of Affect and Expertise: An Examination of Their Roles in Media Effects Research" (Li-Ning Huang and others); "The Interplay between Affective States in News Processing: An Examination of the 'Warmer' Side of Audience Activities" (Mei-Ling Hsu); "Willingness to Speak Out and the Spiral of Silence: A Meta-Analysis" (Carroll J. Glynn and others); The Bias of Political Science in the Study of Mass Media and Democracy" (Erik P. Bucy and Paul D'Angelo); "Paring Down to the Bare Bones of Communication Phenomena with Cognigraphics: An Elemental Analysis of Headline Impact on Ad Recall" (Fiona Chew and others); "A Comparative Assessment of the Effects of Exposure to Media Reports and Political Ads on Voter Learning and Voting Intention" (Mahmoud A.M. Braima and others); "Taking on the Tube: An Examination of Parents' Media Behavior, Attitudes and Discussion Regarding Television" (Erica Weintraub Austin and others); "Consideration for Choosing Triangulation as Mass Communication Research Method" (Donna A. Allen); and "Prime Time Stereotyping on the New Television Networks" (B. Carol Eaton). Individual papers contain references. (RS)

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Political Adwatches and the Third-person Effect

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Abstract

This study reports the findings of an experiment that tested five hypotheses about the new media genre of adwatches and the common perception that the media persuade others more than oneself, termed the third-person effect in communication. The study found that the third-person effect was greater for negative political ads than for adwatches, which was explained with differences in the perceived social desirability of the two messages. Further analyses found that the third-person effect was negatively associated with subjects' attitudes toward the ads and the adwatches, and its magnitude was dependent on whether subjects saw ads and adwatches alone or in conjunction. Finally, the study found that the third-person effect was associated with people's feelings about their state, a relatively unexplored variable termed public mood, and with their level of political cynicism.

Political Adwatches and the Third-person Effect

> "Perhaps political advertising should be banned, or ads required to pass bipartisan committees evaluating their truthfulness." (Tannen, 1992, p. X1)

Introduction

Differences in perceiving the self and others are central to the study of information processing and persuasion in communication research. Such differences are clearly demonstrated in the common tendency to think that media affect others more than oneself, a persuasion phenomenon called the third-person effect.

Since the 1980's, when the term was introduced (Davison, 1983), a number of communication and public opinion scholars, as well as social psychologists, have explored the third-person effect and the conditions under which it is exhibited. It is now clear that people do not consistently exhibit the effect across messages and sources. Instead, the effect is usually associated with messages that are perceived as socially undesirable and sources that are seen as untrustworthy.

This study tests the third-person effect in association with a relatively new persuasion phenomenon, the so-called political adwatch (or truth watch). An adwatch is " a media news critique of [election] candidate ads designed to inform the public about claims that are either exaggerated or false" (Pfau & Louden, 1994, p. 326). The third-person effect is implied in the genre of adwatch itself. The expectation that political ads have a significant effect on the audience is embedded in the adwatches' mission to protect the allegedly vulnerable viewer from misleading persuasive messages. To our knowledge, the present study is the first to examine the association between adwatches and the third-person effect.

Phenomena Related to the Third-person Effect

The third-person effect is not a single phenomenon but appears to belong to a family of other social cognition or public opinion effects. For example, the false uniqueness effect is the tendency of people to believe that they have unique abilities that distinguish them from the average person (Marks, 1984; Snyder & Fromkin, 1980; Tesser, 1988; Tesser & Paulhus, 1983). A similar effect may be exhibited when it comes to attitudes. The effect of mistakenly perceiving others' opinions as very different from one's own when in reality they are not is called pluralistic ignorance (Allport, 1924). A number of studies have shown a particular type of pluralistic ignorance--the tendency to overestimate others' support for segregation (Breed & Ktsanes, 1961; Katz & Allport, 1931; O'Gorman, 1975; O'Gorman & Garry, 1976; Taylor, 1982; Saenger & Gilbert, 1950).

On the other hand, people may mistakenly believe that others think the same as they do. This effect of perceiving the opinion of the majority as a reflection of one's own opinion has been called "looking glass perception" by Fields and Schuman (1976) or "false consensus" by Ross, Green, and House (1977) or "projection" by Holmes (1968). The false consensus effect and the third-person effect do not necessarily contradict each other. In fact, it has been suggested that they occur under different conditions (Innes & Zeitz, 1988).

The third-person effect can also be related to a hypothesis variously labeled "impersonal impact," "unrealistic optimism, " "personal optimism," "biased optimism," and "societal optimism," i.e., people's tendency to believe that only good things happen to themselves, while bad things happen only to others. This belief of one's own invulnerability to negative outcomes is similar to the tendency to rate oneself as not susceptible to undesirable media influence while seeing others as vulnerable (Glynn & Ostman, 1988).

In addition, research on social identity and self-categorization has shown that people classify members of an out-group (to which they don't belong) as different from themselves and the members of their in-group. Out-group members are perceived to be less complex, less variable, and less individualistic than in-group members (Perdue, Dovidio, Gurtman, & Tyler, 1990; Turner, Hogg, Oakes, Reicher, & Wetherell, 1987).

Finally, the third-person effect may be related to the spiral of silence effect in public opinion (Davison, 1983; Mutz, 1989; Noelle-Neumann, 1973, 1974, 1977, 1980, 1984, 1985, 1991, 1993). As the spiral of silence hypothesis states, when people form an opinion about a controversial subject, they observe what the dominant opinion on the issue is and whether they would be in the majority or in a minority. The media are credited with an important role in this process, serving as an indicator of what the opinion of the majority is.

Possible Explanations of the Third-person Effect

The third-person effect may be explained by both cognitive and motivational theories. In general, it is assumed that both cognitive and motivational factors affect people's self-other perception (Duck & Mullin, 1995).

A typical cognitive explanation is that people have schemas of others or expectations of themselves that may cause erroneous perceptions of others' abilities and attitudes. Thus the processing of schema-discrepant and schema-consistent information could cause a third-person effect (Perloff, 1989). In addition, people are unlikely to have easily accessible knowledge about the actual effects of media on themselves, but they are able to observe such effects on others, similarly to the actor-observer effect (Perloff, 1993a). On the other hand, people have more information about their own feelings and perceptions than about others', which often leads to making the fundamental attribution error of attributing situational causes for one's own behavior but dispositional causes for others' behavior (Fiske & Taylor, 1992).

Furthermore, research on self-conceptions and information has revealed the egocentric character of knowledge. Studies of retrieval of information about self and others have found the self-schema to be the most central and the strongest schema, relative to other knowledge structures in human memory. People often use their self-schemas as criteria to evaluate others, whether individuals or groups (Markus, 1977; Markus & Sentis, 1982; Markus, Smith, & Moreland 1985). It has been demonstrated that people prefer to acquire information that reinforces their self-conceptions, so they actively seek self-confirmatory information (Swann, 1985).

In contrast, a pure motivational explanation is that people have a need to preserve a positive self-conception. They think and behave in ways that would either maximize their self-evaluation or would minimize any loss in self-evaluation. Self-enhancement and self-evaluation maintenance theories may explain the errors in social perception with people's need to maintain a positive self-evaluation, also called beneffectance (Greenwald, 1980). Because self-evaluation and maintenance drive many of people's behavioral systems (Tesser & Cornell, 1991), they are likely to drive social perception as well.

It is possible that people's inventory of self-defense mechanisms or what Tesser (Tesser, Martin, & Cornell, in press) calls a "zoo" of self-defense mechanisms, also includes the third-person effect. Indeed, Duck (Duck, Hogg, & Terry, 1995, p. 195; Duck & Mullin, 1995), among others, suggests that the third-person effect is due to motivational needs, such as "self-esteem, social identity, and differentiation from others." The perception of oneself as less susceptible to media influence than others might be used unconsciously by people for the maintenance of their self-evaluation.

More realistic, however, are explanations with both cognitive and motivational components. Atwood (1994) has linked cognitive adaptation theory to the third-person effect and its reverse, the first person effect of believing one is more affected by the media than others. Atwood's study suggests these effects are the result of an illusion people create in order to have images of themselves and others consistent with their beliefs about the impact of media. This explanation obviously contains a motivational factor of maintaining a cognitive balance, but also includes cognitive components.

The motivational and cognitive explanations of the third-person effect find support in the evidence that social desirability or acceptability of messages significantly affect the magnitude and the direction of the third-person effect. Gunther and Thorson (1992) first explored the possibility that social desirability or acceptability would be an important predictor of the third-person effect. They found that the third-person effect was significantly smaller for public service announcements than for product ads. Before them, Innes and Zeitz (1988) had found differential third-person effects for different media issues, with the strongest effect for violence on television, and smaller but still existent effects for political campaigns and drunk driving issues. The role of the messages' social acceptability was further confirmed in an experiment by Gunther and Mundy (1993, p. 61), which supported their hypothesis that media messages perceived as "not smart to be influenced by" would produce a greater third-person effect. Similarly, Thorson and Coyle (1994) found that the third-person effect was strongest for product commercials but significantly smaller for public service announcements and greening ads. In addition, Gunther (1995) found a strong third-person effect for pornography, which his participants were likely to have seen as socially unacceptable.

In the political domain, Rucinski and Salmon (1990) found that perceived harmfulness of messages is a significant positive predictor of the third-person effect, even after controlling for demographics, media use, political interest and social and economic ideology. Rucinski and Salmon discovered the following distribution for the third-person effect: it was the strongest for negative political ads, then for political ads, then for polls, and weakest for news and debates. Cohen and Davis (1991) found negative political ads stimulated a third-person effect for people who supported the candidate attacked in the ads. Further, Duck and Mullin (1995) observed a stronger third-person effect for negative content than for positive content, which in turn elicited larger third-person effects than public service announcements did.

These findings provide evidence for a mixture of cognitive and motivational causes of the third-person effect. According to the cognitive explanation, people have schemas of what is socially more or less desirable. While product commercials are perceived as less socially desirable and candidates' ads during elections are increasingly seen as part of dirty campaigns, environmental messages and public service announcements are perceived as socially desirable. Once a message is characterized as socially undesirable, the perceiver has the motivation to maintain and protect his or her self-evaluation by assuming that he or she would not be susceptible to such a message. In the opposite case, when a message is characterized as socially desirable, the perceiver has the motivation to assume it would have a positive effect on him or herself.

Research on Adwatches

Criticisms of political advertising date far back, e.g., the 1964 and 1972 Presidential campaigns, and the rise of negative political ads has been accompanied by politicians' counter ads (Ansolabehere & Iyengar, 1995; Devlin, 1995, Diamond & Bass, 1984; Jamieson, 1992a, 1992b; West, 1993). The news media have long expanded their watchdog role to monitoring political ads but their efforts have increased recently (McKinnon, 1995a, 1995b). With the growing awareness of negative campaigning in the 1990s, the news media have even started to refer to themselves as "the ad police" (Jackson & McCaughan, 1992). Studies on the specific genre of political adwatches are mostly recent, following this trend.

Despite the logical expectations of adwatches' anti-deception power, the still limited research on adwatches has produced mixed results about their anticipated positive effects. Jamieson (1994) suggested that they may in fact have a boomerang effect. That is, exposure to adwatches criticizing a candidate's negative ad may lead to better recall of the ad than of the fact that it contained a misleading message. Only if the adwatch's format was boxed, rather than full screen, Jamieson reported, was the adwatch remembered better than the ad. Other studies discovered similar mixed effects. Pfau and Louden (1994) found, among female viewers, a boomerang effect for one candidate's ad that was remembered better after viewing the adwatch criticizing it. Capella and Jamieson (1994) found, among other effects, that adwatches did not lead to a more positive attitude toward the candidate who had been criticized in the ad by his opponent, and that an adwatch's content was best remembered by people who had had the least exposure to the original ad. Further, McKinnon (1995a, 1995b) found that the attitude toward a candidate sponsoring an attack ads was more favorable than the attitude toward the attacked candidate, even after viewing the adwatch.

These findings suggest possible negative effects of adwatches. Investigating the third-person effect in association with adwatches will bring further insights into understanding the audience perceptions of adwatches and their potential effects.

Hypotheses

The Third-person Effect and Social Desirability of the Message

The research showing differential third-person effects for socially desirable and undesirable messages and sources can be translated to the reception of political ads and political adwatches. The perceived social desirability of negative political ads and adwatches should influence the magnitude of the third-person effect. Negative ads, as shown by Rucinski and Salmon (1990) are perceived as socially harmful. As one columnist intuitively put it, "negative campaigning is rarely pretty. Sometimes it doesn't feel good either" (Broder, 1995, p. 4A). In contrast, adwatches should be generally seen as socially desirable messages. After all, they are created to compensate for the perceived negative effects of misleading negative political ads. In this way, one of the expected positive effects is that of a "reality check" (Jamieson, 1994, p. 56). Therefore, although the third-person effect can be expected to be magnified for political ads, it should be smaller for the more socially desirable adwatches.

There is another dimension that distinguishes negative political ads from political adwatches--credibility of the source. Negative ads are usually designed in favor of or by a candidate who hopes to gain votes by discrediting his or her opponent. In contrast, adwatches are conducted by the news media whose entire mission in society is framed in terms of impartial, fair, balanced, and accurate presentation of information, as well as in the role of a politicians' watchdog. In an experimental study of the effects of ads and adwatches, O'Sullivan and Geiger (1996, p. 780) observed that "people likely can distinguish between information coming from an ostensibly disinterested source and a persuasive message from a source with a vested interest in the outcome." According to O'Sullivan and Geiger's (1996) findings, negative political ads are seen as less credible than the adwatches that are created and produced by journalists. In the third-person effect research, the effect has been found to increase when the source of the message is perceived to be untrustworthy due to bias, for example, defamatory newspaper articles (Cohen, Mutz, Price & Gunther, 1988) or because of low credibility of the medium, for example, the *National Enquirer* (Gunther, 1991). Given the fact that the third-person effect is a robust and far-reaching phenomenon, as well as this literature's framework, we expect that:

H1: Third-person effects will be present for both ads and adwatches. The third-person effects will be greater for ads than for adwatches.

The Third-person Effect and Attitude toward the Ad

If a message is perceived to be socially undesirable or harmful, as negative political ads are (Rucinski & Salmon, 1990; Broder, 1995), the attitude toward them should be negative. Adwatches further facilitate this negative attitude toward the ads. In a field experiment (Capella & Jamieson, 1994), adwatches affected subjects' views of the ads' importance and fairness, i.e., made the attitude toward the ads more negative. Surprisingly, however, attitudes toward the adwatches have also been found to be fairly unfavorable. McKinnon (1995a, 1995b) found that subjects in her experiment mostly agreed with negative opinion statements about the effects, fairness, and accuracy of the adwatches to which they were exposed. Negative perception of media messages stimulates the third-person effect, as previous research has shown. Therefore, we expect that:

H2: Third-person effect for ads will be negatively associated with attitude toward the ads. The more negative the attitude toward the ads, the greater the third-person effect for ads and vice versa. Third-person effect for adwatches will be negatively associated with attitude toward the adwatches. The more negative the attitude toward the adwatches, the greater the third-person effect for adwatches and vice versa.

The Third-person Effect and Treatment Condition

We also expect the third-person effects for negative political ads and adwatches to vary, based on whether subjects see both ads and adwatches or one type of message alone. McKinnon (1995a, 1995b) found that subjects' attitudes toward political ads were enhanced when they saw the ads in conjunction with adwatches. Based on this result, as well as on the previous hypothesis that attitudes toward ads and adwatches and the third-person effects are associated, we predict that:

H3: The levels of the third-person effects for ads and adwatches will differ between groups who see ads or adwatches alone and those who see both.

The above three hypotheses concern the effects of specific media messages, such as negative political ads and adwatches, on the third-person effect that people experience. The next hypotheses refer to characteristics of the message perceivers themselves that may influence the strength of the third-person effect exhibited in the context of political ads and adwatches.

The Third-person Effect and Public Mood

The influence of the social desirability of messages on the strength of the third-person effect, found in previous research, shows the nature of the effect as a state, variable with external influences. That is, the third-person effect varies within individuals. However, there is also evidence that the third-person effect varies across individuals, regardless of the message. Recent developments in the study of the third-person effect have suggested that, as much as the effect is shown to be a state, it is also a trait exhibited by some individuals more than by others. Perceiver characteristics predicting the third-person effect include demographics, such as age and education (Tiedge, Silverblatt, Havice, & Rosenfeld, 1991), actual and perceived personal or general knowledge/cognitive involvement (Lasorsa, 1989; Mutz, 1989; Perloff, 1989; Price, Huang, & Tewksbury, 1995; Vallone, Ross, & Lepper, 1985), ego-involvement, such as membership in a group or political orientations (Duck et al., 1995; Perloff, 1989), media orientations (Price et al., 1995), media use patterns (Rucinski & Salmon, 1990), or personality characteristics, such as need for cognition (Ognianova & Thorson, 1996; Ognianova, Thorson & Rahn, 1995). Indeed, it is logical that, if individual traits affect people's susceptibility to persuasion (Abelson, 1959), then they also affect people's perception of others' and their own persuasibility.

A similar variable with both state and trait components is the newly introduced in political psychology construct of public mood. This concept refers to citizens' feelings about their political environment. In general, mood is a long-term positive or negative feeling that does not have the intense peaks usually associated with emotion and is not traceable to a specific source (e.g., Clore, Schwarz, & Conway, 1993; Fiske & Taylor, 1992). Public mood, in turn, is defined as a "diffuse affective state, having distinct positive and negative components, that people experience because of their membership in a particular political community" (Rahn, Kroeger, & Kite, in press, p. 4).

A way to understand the concept of public mood is to compare it to the feelings people have as members of social groups. Public mood is a subset of what psychologists refer to as "social emotion." If people have certain feelings as members of social groups, they should experience similar feelings as members of political communities. Rahn's research (Clore & Rahn, 1994; Rahn & Clore, 1994; Rahn et al., in press) gives examples of such public feelings: the feeling that most Americans experience when a fellow American wins the Olympics, after the death of a public figure who represented the country as a whole, or during periods of perceived threats to national security. In explaining the construct of public mood, Rahn refers to Katz's (1965) work that has suggested two levels at which people function as members of a [political] system. Katz (p. 361) has written that: "At the one level they [people] are tied into the structure through their emotional investment in symbol systems.... At another level people are integrated into the system through their functional interdependence in their everyday activities and their empirically oriented beliefs about these interdependent activities." As can be seen from the quote, both of these levels have affective components.

If one's private mood is dependent on physiological, cognitive (such as memory of experiences; e.g., Simon, 1982), and environmental factors, public mood is narrowly experienced as a function of one's membership in a political community (Clore & Rahn, 1994; Kite & Rahn, 1995; Rahn & Clore, 1994; Rahn et al., in press). Public mood cannot be dependent on physiological factors, although it might be possible to measure by autonomic responses as private mood often is. It is logical that one's private and public moods are related because a person's mood may affect his or her feelings about the political community; and vice versa, a positive or negative mood about the political community may affect one's private mood. Despite their relationship, it has been suggested that private and public moods are analyzed separately as two different concepts (Clore & Rahn; Rahn & Clore, 1994). Public mood is experienced in different context from that, which stimulates personal feelings. Although an individual may not distinguish between the two different feelings associated with one's personal life and one's political environment, they are driven by different forces.

Similar to the third-person effect, public mood is a complex construct that has the characteristics of both a state and a trait (Kite & Rahn, 1995). Public mood is influenced by external stimuli, such as media messages (Rahn & Hirshorn, 1995), but it also has its origins in individual differences, such as demographics, personal experiences, and personality characteristics. A number of studies (Kite & Rahn, 1995; Ognianova, Thorson, & Coyle, 1996; Rahn and Clore, 1994; Rahn et al., in press) have found that people in fact start out with different feelings about their country or state, depending on their individual differences. The findings that both the third-person effect and public mood have trait components suggest that there may be a relationship between the two variables. This study attempts to test such possible relationship specifically in the context of viewing negative political ads and adwatches.

There is some evidence that the two variables operate in a similar way. For example, much like the third-person effect, public mood is affected by negative political advertising. Rahn and Hirshorn (1995) conducted an experiment presenting negative or positive ads to children (age 8 through 13) and measuring afterwards their public moods about their country. Children exposed to negative ads reported feeling significantly more unhappy, more sad and more angry about their country than children in the positive ads condition. Furthermore, after regressing the children's pre-test public mood and tone of the ads on the post-test public mood, the authors found a significant effect for the ads' tone on the post-test public mood. They concluded that, "while public mood has considerable inertia, it can be influenced by the tone of political advertising" (Rahn & Hirshorn, 1995, p. 11). In addition, Thorson, Ognianova, Coyle and Denton (1995) found in survey research that self-reported exposure to negative political advertising was strongly related to increased negative public moods and decreased positive public moods.

Based on the similar nature of public mood and the third-person effect, as well as on the findings that they are influenced by similar stimuli, we expect that:

H4: Third-person effects for ads and adwatches will be positively associated with negative public moods and negatively associated with positive public moods.

The Third-person Effect and Political Cynicism

There is evidence that public mood is associated with citizens' level of political cynicism. Thorson, Ognianova, Coyle and Denton (1995) found clear support for the hypothesis that self-reported exposure to negative political ads is related to increased political cynicism, and self-reported exposure to positive political ads is related to decreased political cynicism. This result can be extended to adwatches. In general, the mass media are blamed for instilling political cynicism--the so-called "video malaise" hypothesis (Robinson, 1976), as well as the popular argument that the press is "a generation of vipers" and that they "hold causal disdain" for everything political (Starobin, 1995). In regards to adwatches, it can be argued that, in their own way, they arm citizens with yet more knowledge about dirty campaigning that could naturally be related to political cynicism. If the third-person effect does indeed have the components of both a trait and a state, it is possible that people's enduring level of political cynicism and the third-person effects they experience are related. Thus, we also expect that:

H5: The third-person effects for ads and adwatches will be positively associated with level of political cynicism.

Method

To test the above hypotheses, an experiment was conducted in October, 1994, with one hundred and ninety-five students enrolled in an undergraduate American Government class at a large Midwestern university. Approximately six weeks before the experiment, a pre-test survey collected information about participants' demographics, political knowledge, and their public moods about the state and the country. For participating in the experiment, the subjects received extra class credit but questionnaire responses were anonymous. Subjects were randomly assigned to one of nine treatment conditions, each of which consisted of presentation of videotaped segments of a local television news program with commercials inserted between news segments. Participants were escorted in groups of five to 10 people to a comfortable viewing room, where they completed a pretest pencil and paper questionnaire. They then watched the videotape and completed a post-test pencil and paper questionnaire. The procedure lasted about 45 minutes.

Stimulus Materials

The treatments consisted of combinations of previously aired negative political ads and adwatches concerning two 1994 political campaigns: a U.S. Senate campaign featuring John Ashcroft (a Republican former two-term Governor) and Alan Wheat (a Democratic U.S. Senate representative who had served six terms in office); the second campaign was for the state auditor position and featured Margaret Kelly (a Republican incumbent) and Steve Danner (a Democratic challenger). Although the political ads had appeared in television markets statewide, the adwatches used had appeared in distant markets elsewhere in the state. The adwatches (with an introduction by a local news anchor) were then edited into a tape of an actual newscast.

For each campaign (the senate and state auditor) there were four treatment conditions. Condition 1 showed a television commercial for each candidate (the two commercials were in the same pod), which were followed later in the newscast by adwatches that analyzed the claims made in each ad. In Condition 2, the order was transposed, with the adwatches appearing first and the political ads appearing later. Condition 3 did not contain the political ads, exposing the subjects to the adwatches only. In Condition 4, the news segments did not contain the adwatches, but included the political ads. Thus, there was a total of eight treatment conditions (4 treatments x 2 political campaigns) used. A ninth condition was a control, in which the news segment was viewed, but no political ads or adwatches were included. Participants either saw commercials and adwatches designed for the U.S. Senate campaign, or for the state auditor race.

Measures

The third-person effect is a robust phenomenon detected both by experimental and survey research. It is usually measured by asking questions about how much respondents think the media in general or specific media messages affect themselves and how much they think the media and their messages affect other people. (The latter varies, depending on the purposes of the study. For example, if a study tests the effect of the social distance to various reference groups, this question could range from specific, closer groups to vague, more distant ones, such as "most people" or "the general public.") The order in which the "me" or "others" questions are asked has been shown to not affect the magnitude and behavior of the third-person effect (Tiedge et al., 1991).

The influence that respondents report for themselves is subtracted from the influence that they perceive other people in general experience. The formula is simply:

$$\mathbf{E} = \mathbf{O} - \mathbf{M},$$

where **E** is the effect or the perceived difference between the media influence on self and others; **O** is the perceived magnitude of media influence on others; and **M** is the perceived magnitude of media influence on oneself. If the resulting value is positive, then there is a clear third-person effect. If the resulting value is negative (i.e., if others are perceived to be less affected than oneself) this is a reverse third-person effect, sometimes called a first-person effect. If the resulting value is zero, a null effect or a perception of equal media influence is exhibited.

In this study, the operationalization of other people was general, asking participants how much they thought "other viewers" and themselves would be influenced by the political ads and adwatches viewed during the procedure. Perceived influence on self and others was measured on five point scales, with one indicating "not very influenced" and five indicating "very influenced." When perceived influence on oneself was subtracted from perceived influence on others then, the possible values for a third-person effect ranged from a minus four to a plus four.

Attitude toward the ads was measured by three seven-point scales anchored by dislike/like very much, very negative/very positive ad, and very good/very bad ad. Cronbach's alpha coefficients indicated satisfactory internal consistency of all scales: .83 for attitude toward the John Ashcroft ad, .79 for attitude toward the Alan Wheat ad, .78 for attitude toward the Margaret Kelly ad, and .74 for attitude toward the Steve Danner ad. Attitude toward the adwatches was measured the same way and showed similar inter-item consistency. Cronbach's alpha coefficients were as follows: .85 for attitude toward the John Ashcroft adwatch, .86 for attitude toward the Alan Wheat adwatch, .80 for attitude toward the Margaret Kelly adwatch, and .80 attitude toward the Steve Danner adwatch.

Public mood about the state was measured before and after participants viewed the stimulus materials. The construct of public mood has been found to have the structure of two distinct, but correlated factors, labeled positive and negative public mood (Rahn & Clore, 1994; Rahn et al., in press). This distinction is common in the literature on theories of affect, whether the factors are termed positive and negative affect, or something else. Mano (1990) has also found support for a two-factor structure of affective states, consisting of pleasantness and arousal.

In this study, measures of pleasure/displeasure, tested in the psychology literature (e.g., Russell & Mehrabian, 1977), were used to measure public mood about the state.

Participants were asked: When you think about the state of ... right at this moment, how strongly or weakly do you feel: hopeful, despairing, happy, unhappy. The response options were "very strongly, strongly, neither strongly nor weakly, weakly, and very weakly." The Cronbach's alpha coefficients indicated satisfactory internal consistency of both scales: .62 for positive mood about the state and .75 for negative mood about the state. As could be expected, the two public mood scales were significantly inversely correlated (r=-.57, p<.01).

The political cynicism scale was composed of responses to seven items, used consistently by the Times Mirror Center (1994) and measured in a pretest approximately six weeks before the experiment. The Cronbach's alpha coefficient of .74 also indicated satisfactory internal consistency of this scale. Table 1 lists the items that were used to measure all variables of interest in the study.

Results

This study predicted that third-person effects would be present in people's perceptions about two types of televised political communication, negative political ads and media-produced political adwatches critiquing the ads. Two kinds of hypotheses were posited. The first kind predicted third-person effects as influenced by the media messages, specifically that the third-person effects for negative political ads would be greater than those for adwatches, that the effects would differ in association with subjects' attitudes toward the ads and the adwatches, and that the effects would differ based on whether subjects saw the ads or adwatches alone or in conjunction. The second kind of hypotheses predicted third-person effects as influenced by characteristics of the message perceivers, specifically that the third-person effects for ads and adwatches would be associated with subjects' public mood about the state and with their level of political cynicism.

We began the data analysis by first determining if third-person effects, which have been found in wide-ranging areas of research, would in fact be apparent after single exposures to televised political ads and/or adwatches. Clear third-person effects for both ads and adwatches were found. As Table 2 shows, all four of the political ads produced greater perceived effects on others than on the participants themselves. The third-person effects ranged from a low of .53 for the John Ashcroft ad to a high of .86 for the Alan Wheat ad. Of the 130 subjects in conditions where they saw political ads, 78 exhibited a third-person effect, 42 exhibited no difference, and 10 exhibited a negative third-person (or a first-person) effect. The overall mean third-person effect for ads was .68. A *t*-test comparing this mean against a null hypothesis of no effect was significant ($t_{(129)} = 8.35$, $p < .001$). Third-person effects for adwatches were also apparent, occurring for all four of the political adwatches, with mean third-person effects ranging from a low of .23 for the Steve Danner adwatch to a high of .47 for the John Ashcroft adwatch. Third-person effects for adwatches were less frequent, however, exhibited by 56 of the 129 subjects in the adwatch conditions, with 52 exhibiting no effect and 21 exhibiting a negative third-person (or first-person) effect. The overall mean third-person effect for adwatches of .34 was also significantly different from zero ($t_{(128)} = 4.27$, $p < .001$).

Insert Table 2 about here

In addition to predicting that third-person effects would be found for both ads and adwatches, Hypothesis 1 proposed that third-person effects for ads would be greater than those for adwatches due to perceptions of adwatches as socially desirable messages. As already shown in Table 2, the overall mean for third-person effects for ads was .68, twice as high as the overall mean for adwatches, .34. A one-tailed dependent t-test on matched pairs (i.e., participants in treatment conditions 1 and 2, which showed both the ads and the adwatches for each campaign) provided further confirmation for the prediction of greater third-person effects for political ads than adwatches ($t_{81} = 3.94$, $p < .001$). Thus, Hypothesis 1 was clearly supported.

Hypothesis 2 predicted that third-person effects for ads would be negatively associated with attitudes toward the ads and third-person effects for adwatches would be negatively associated with attitudes toward the adwatches. Partial support for this hypothesis was found using Pearson correlations as statistical tests, as shown in Table 3. For the John Ashcroft messages, significant relationships were found between attitude toward the ad and third-person effect for the ad ($n = 68$, $r = -.32$, $p < .01$), and between attitude toward the adwatch and third-person effect for the adwatch ($n = 68$, $r = -.29$, $p < .01$). For the Alan Wheat messages, attitude toward the adwatch and third-person effect for the adwatch were significantly related ($n = 69$, $r = -.20$, $p < .05$); the correlation for attitude toward the ad and third-person effect for the ad was in the predicted direction but was marginal in significance ($n = 68$, $r = -.18$, $p <.10$). Correlations were not significant for the Margaret Kelly and the Steve Danner messages of the auditor's campaign.

Insert Table 3 about here

Hypothesis 3 predicted that third-person effects for ads and adwatches would vary based on whether subjects saw both ads and adwatches or only one type of message. Here, we were interested in seeing, regardless of which political campaign messages were used, if the magnitude of the third-person effects for ads or adwatches would be mediated by the presence of an opposite, or counterarguing, message. As such, we collapsed across treatment conditions that showed ads and adwatches from the different political campaigns to create a between-subjects factor for message exposure (i.e., both types of messages versus one type of message shown).

Table 4 shows the mean third-person effects for ads/adwatches, adwatches/ads, adwatches/no ads, ads/no adwatches, and overall for all treatment conditions. Inspection of the table shows that the mean third-person effect does indeed vary, depending upon whether the subjects saw one message only or the two messages together. The mean third-person effect for the adwatches only condition was .59, nearly three times greater than when the adwatches were seen in combination with the political ads (mean = .24). On the other hand, the third-person effect was the largest when subjects saw adwatches and ads together but viewed the adwatches first and the critiqued ads afterwards.

Insert Table 4 about here

These mixed results required further testing of Hypothesis 3. Since one hypothesis in the study stated that positive public mood and negative public would be associated with third-person effects for adwatches, we ran an analysis of covariance (ANCOVA) test on third-person effects for message exposure as the between-subjects factor [one message (ads only or adwatches only) vs. ads and adwatches together] and positive public mood and negative public mood as covariates. After the effects of the mood variables were covaried out, the message exposure factor was significant ($F_{(1,125)} = 6.81$, $p = .01$), again indicating that adwatches seen in combination with the ads they were critiquing produced different third-person effects than when only the adwatches were seen. The analysis for ads alone vs. ads in conjunction with adwatches, however, did not yield significant results. Hypothesis 3 then, was supported for third-person effects for adwatches but not for ads.

Hypotheses 4 and 5 predicted that third-person for ads and adwatches would be positively associated with negative public mood and negatively associated with positive public mood, and that third-person effects would be positively associated with subjects' level of political cynicism. Table 5 shows the results for these hypotheses. First order correlations indicated general support for the relationships in the predicted directions for adwatches. Strong associations were found between third-person effects for adwatches and public mood. Subjects with higher levels of positive public mood consistently exhibited smaller third-person effects for adwatches. The correlations between positive public mood were significant in the predicted directions for the John Ashcroft adwatch

($r = -.42$, $p < .01$), the Alan Wheat adwatch ($r = -.29$, $p < .01$), and the Margaret Kelly adwatch ($r = -.21$, $p < .05$); the correlation for the Steve Danner adwatch was not significant. The correlation between positive public mood and the overall third-person effect for adwatches was significant as well ($r = -.27$, $p < .01$).

Negative public mood also operated as predicted, showing a positive relationship wherein third-person effects for adwatches increased for subjects who had higher negative feelings about their state. Three of the correlations were significant in the predicted direction: for the John Ashcroft adwatch ($r = .29$, $p < .01$); for the Alan Wheat adwatch ($r = .20$, $p < .05$); and for the overall third-person effect for adwatches ($r = .23$, $p < .01$). The correlations between negative public mood and third-person effect for the Margaret Kelly and Steve Danner adwatches were in the predicted positive direction but not significant.

For third-person effect for ads, however, the hypothesis of a positive association between negative public mood and the third-person effect and a negative association between positive public mood and the third-person effect was not entirely supported. The only significant correlations for public mood and third-person effects for ads were for positive public mood and third-person effect for the Steve Danner ad ($r = -.26$, $p < .05$), and for negative public mood and third-person effect for the John Ashcroft ad ($r = .20$, $p < .05$).

Finally, Hypothesis 5, which predicted a positive association between third-person effects for ads and adwatches and political cynicism was generally supported. The third-person effect for the Steve Danner ad was significantly correlated in the predicted direction with level of political cynicism. Correlations between the third-person effects for the other three candidates' ads and political cynicism, however, were not significant. Third-person effects for adwatches criticizing the John Ashcroft, Margaret Kelly, and Steve Danner ads were not significantly correlated with political cynicism either. On the other hand, the third-person effect for the adwatch criticizing Alan Wheat's ad was positively correlated with political cynicism and the overall third-person effect for adwatches was also significantly positively correlated with political cynicism. Overall then, Hypothesis 5 was supported. Table 5 shows the results for Hypotheses 4 and 5.

Insert Table 5 about here

Discussion

This study linked two new and important topics of research in political communication--adwatches and public mood--to the third-person effect, allowing us to gain more insight into this peculiar but persistent phenomenon of mass communication. As expected, most people showed a third-person effect, both in thinking they were less influenced by the ads and the adwatches. Also as expected, the third-person effect was smaller for adwatches than for ads, and it would appear that the social acceptability aspect of these two types of messages is relevant here. The finding that there is greater variation in the ratings of influence on self than on others is interesting and should be pursued. It is consistent with the findings that people perceive others less familiar to be less complex, less variable, and less individualistic than those familiar to themselves (e.g., Perdue, Dovidio, Gurtman, & Tyler, 1990). The person we know best is ourself, and we know something of the complexity of that self. Others, however, we do not know so much about, and therefore their variability likely seems less to us. The pattern of effects within the third-person phenomenon seems to be tied closely to perceptions of that about which we know little--that is, about others.

The finding that adwatch third-person effects were greater when the adwatches were seen in isolation than when they were seen in conjunction with the ads they were critiquing (See Table 4), is an intriguing one. We hypothesized an exposure effect under the assumption that watching ads lessened the effects of adwatches. Whether this was the cause of the adwatch-alone effect or not is not perfectly clear. It may be that people are actually very influenced by the adwatch alone, and therefore they infer that others are even more affected. Or, it may be that they are less affected and rate themselves that way, but continue to give others the same estimate of effect. In either case, this finding is consistent with the notion that adwatches have greater effects when the ads are not around to be seen, thus supporting the work of Capella and Jamieson (1994).

Interestingly, public mood was an important mediator of the third-person effects. Those with more negative public moods showed greater third-person effects. However, the effects of seeing either both ads and adwatches or just adwatches by themselves remained significant, even when public mood was covaried out.

Finally, another important finding suggested that attitudes toward the ad or the adwatch may act in conjunction with the third-person effect. The more negative the attitudes toward the ad or the adwatch, the greater the third-person effect. This result is also consistent with the notion that less social acceptability of the messages leads to greater third-person effects. It should be noted, of course, that which direction the causal relation flows here cannot be ascertained. It may have been that the more third-person effect there was, the less people liked the adwatches, although the logic here is less compelling.

In general, this study showed that the third-person effect is clearly influenced by what combination of ads and adwatches people view. The third-person effect is related to the public moods that people experience and to their levels of political cynicism. And, the third-person effect is related to how well people like political ads and the adwatches critiquing them. What is needed next is a more micro-level examination of just how public mood, perceptions of self and others, and processing of media messages about politics are related. What process comes first? How do people ascertain "how influenced they are" in response to media messages? Then how do they ascertain "how influenced others are." Do these decisions then feed directly into how they feel about political entities like state and country? And probably most importantly, for those who work in the mass media message field, exactly how do messages affect these processes?

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Table 1
Measures

Measures of third-person effect for ads

How influenced would you say you are by the ad in favor of (John Ashcroft, Alan Wheat, Margaret Kelly, Steve Danner, depending on treatment condition)?
Response categories: (1) Not very influenced to (5) Very influenced **(Me)**

How influenced would you say other viewers are by the ad in favor of (John Ashcroft, Alan Wheat, Margaret Kelly, Steve Danner, depending on treatment condition)?
Response categories: (1) Not very influenced to (5) Very influenced **(Others)**

Third-person effect for ads = Others - Me

Measures of third-person effect for adwatches (truth watches)

How influenced would you say you are by the truth watch criticism of the (John Ashcroft, Alan Wheat, Margaret Kelly, Steve Danner, depending on treatment condition) ad?
Response categories: (1) Not very influenced to (5) Very influenced **(Me)**

How influenced would you say other viewers are by the truth watch criticism of the (John Ashcroft, Alan Wheat, Margaret Kelly, Steve Danner, depending on treatment condition) ad?
Response categories: (1) Not very influenced to (5) Very influenced **(Others)**

Third-person effect for adwatches = Others - Me

Measures of attitude towards the ad

Please circle a number from 1 to 7 to indicate your attitude towards the (John Ashcroft, Alan Wheat, Margaret Kelly, Steve Danner, depending on treatment condition) ad that you saw:

Dislike very much	1	2	3	4	5	6	7 Like very much
Very negative ad	1	2	3	4	5	6	7 Very positive ad
Very bad ad	1	2	3	4	5	6	7 Very good ad

Cronbach's alpha for Ashcroft's ad=.83
Cronbach's alpha for Wheat's ad=.79
Cronbach's alpha for Margaret Kelly's ad=.78
Cronbach's alpha for Steve Danner's ad=.74

Table 1 continued: Measures

Measures of attitude towards the adwatch

Using a 7-point scale, please indicate your attitude towards the truth watch criticizing the (John Ashcroft, Alan Wheat, Margaret Kelly, Steve Danner, depending on treatment condition) ad:

Dislike very much	1	2	3	4	5	6	7 Like very much
Very negative	1	2	3	4	5	6	7 Very positive truth watch
Very bad ad	1	2	3	4	5	6	7 Very good ad

Cronbach's alpha for adwatch about Ashcroft's ad=.85
Cronbach's alpha for adwatch about Wheat's ad=.86
Cronbach's alpha for adwatch about Kelly's ad=.80
Cronbach's alpha for adwatch about Danner's ad=.80

Measures of public mood

Now, when you think about the state of ..., please circle a number from one to five to indicate how strongly or weakly you experience the following emotions at this moment:

	Very strongly	Strongly	Neither strongly nor weakly	Weakly	Very weakly
Hopeful	1	2	3	4	5
Despairing	1	2	3	4	5
Happy	1	2	3	4	5
Unhappy	1	2	3	4	5

Positive public mood composed of hopeful and happy. Cronbach's alpha=.62
Negative public mood composed of despairing and unhappy. Cronbach's alpha=.75
Positive and negative moods correlation r=-.57 (p<.01)

Measures of political cynicism

Using a scale of one to five (1=Strongly disagree, 2=Disagree, 3=Neither agree nor disagree, 4=Agree, 5=Strongly agree), please circle a number to indicate your agreement/disagreement with the following statements:

Politicians are all alike.
Politicians really try to represent the interest of the people (reversed).
Politicians would rather tear down their opponent than talk about their own record.
Politicians are honorable people who are dedicated to public service (reversed).
Politicians' votes are for sale to the highest bidder.
Generally speaking, elected officials in Washington lose touch with the people pretty quickly.
Most elected officials care what people like me think (reversed).

Cronbach's alpha=.74

Table 2
Mean Levels of Perceived Influence on Others and Self for Political Ads and Adwatches

Variable	Mean Influence on Others*	Mean Influence on Self*	Third-person Effect (difference)	N
Ashcroft ad	3.13	2.60	.53	68
Wheat ad	3.10	2.24	.86	68
Kelly ad	2.98	2.44	.54	62
Danner ad	3.36	2.60	.76	62
Overall mean third-person effect for ads: .68				**130**
Ashcroft adwatch	3.67	3.20	.47	69
Wheat adwatch	3.61	3.33	.28	69
Kelly adwatch	3.68	3.32	.36	60
Danner adwatch	3.63	3.40	.23	60
Overall mean third-person effect for adwatches .34				**129**

* Perceived influence measured on a 1-5 scale where 1 = “not very influenced” and 5 = “very influenced.”

Table 3

Pearson First-order Correlations between Third-person Effects for Ads and Adwatches and Attitudes toward the Ads and Adwatches

Third-person Effect for Ads	**Attitude toward ad**
John Ashcroft ad	-.32**
Alan Wheat ad	-.18[a]
Margaret Kelly ad	-.11
Steve Danner ad	-.18
Third-person Effect for Adwatches	**Attitude toward adwatch**
John Ashcroft adwatch	-.29**
Alan Wheat adwatch	-.20*
Margaret Kelly adwatch	-.18
Steve Danner adwatch	-.33**

[a] p<.10, * p < .05, **p< .01. All significance tests are one-tail because H2 predicted direction of the associations.

Table 4
Mean Third-person Effects for Adwatches and Political Ads Based on Treatment Orders

Order	Adwatches	Political Ads
Ads/Adwatches	.14	.56
Adwatches/Ads	.24	.82
Adwatches/No Ads	.59	
Ads/No Adwatches		.64
All treatment orders	**.34**	**.68**

Table 5

Pearson First-order Correlations between Third-person Effects, Public Mood, and Political Cynicism

Third-person Effect	Positive Public Mood	Negative Public Mood	Political Cynicism
John Ashcroft ad	-.10	.20*	.17
Alan Wheat ad	.12	-.06	-.26
Margaret Kelly ad	.20	-.10	-.08
Steve Danner ad	-.26**	.03	.35**
Overall Third-Person Effect for Ads	**-.01**	**.04**	**.04**
John Ashcroft adwatch	-.42**	.29**	.09
Alan Wheat adwatch	-.29**	.20*	.22*
Margaret Kelly adwatch	-.21*	.18	.15
Steve Danner adwatch	-.09	.17	.16
Overall Third-Person Effect for Adwatches	**-.27****	**.23****	**.17***

* $p < .05$, **$p< .01$. All significance tests are one-tail because H4 and H5 predicted directions of the associations.

Understanding Adopters of Audio Information Services

by

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Abstract

The use of three newer phone-based innovations--1-900 numbers, phone-based information services, and fax--was assessed in a probability survey of urban respondents. Support was found for the notion that social indicators would be less important in the prediction of innovation use than would attitudinal and communication variables. Findings were interpreted in light of diffusion of innovation theory and research on the adoption of new technologies.

UNDERSTANDING ADOPTERS OF AUDIO INFORMATION SERVICES

While the telephone is commonly taken for granted as a low technology, culturally-integrated voice medium, recent advances in telematics make it ideally situated as an electronic pathway for new information and entertainment services. The Telecommunication Act's deregulatory strictures, including the removal of media crossownership barriers, should facilitate a sweeping transformation in the industry that can enable telephony to emerge as a dominant player in the electronic media environment (H.R. 1555, 1996). In addition, the phone industry continues to offer "intelligent" services (e.g., automated office systems) that blur traditional distinctions between conventional communication media and their high-tech counterparts.

Thus, the telephone--long associated with person-to-person communication--now can operate in a manner more characteristic of mass media, as a sender of mediated information and entertainment. For that reason, it's important to consider audience uses for a wide range of information services, including those delivered via telephone. Since the phone companies have yet to introduce their own Internet services, and only about 10% of Americans subscribe to computer-based online services (Lewis, 1995), we consider audience users of more conventional telephone adjuncts. In particular, this paper profiles audience users and utilities for three widespread applications delivered via telephone--audiotext, 1-900 services, and fax machines.

Background

Mass media phone services rely heavily on "media stimulated" users for their audiences, since their advertisements or promotions in print and broadcast media are often the only means potential users have of learning of them. LaRose and Atkin (1992, p. 414) provide the following profile of the $1 billion audiotext industry[1]:

> About two-thirds of the content accessed through national 900 numbers is entertainment, another 15 percent is live conversation (on so-called Group Access Bridging or "GAB lines"), 10 percent is polling and the rest consists of news and information programs, promotions and user-supported customer service lines. . . There are also audiotext services that allow their callers to learn about the activities of their favorite entertainers or to take part in trivia contests, to confess their sins or to hear confessions recorded by others, or to talk to the undead.

Other work (Glascock & LaRose, 1992) suggests that sexually-oriented services remain prominent, having survived a legal challenge (Sable Communications, Inc. v. FCC, 1989), although industry leader Carlin Communications filed for bankruptcy during the early 1990s. As those authors suggest, the fact that 60% of respondents in a national survey reported using audiotext suggests that it may be the first widely used interactive mass medium.

Despite often being categorized alongside audiotext, 1-900 service is distinctive in that callers can "vote" in media-stimulated plebiscites by pressing buttons on their keypad. The three major long distance carriers in the U.S.--AT&T, MCI and GTE--have all implemented interactive 1-900 services that allow users to retrieve information, complete transactions or answer questions by using their touch-tone phones. The media's increasing use of unscientific "self-selected listener opinion surveys," or SLOPs, has attracted heavy criticism from social scientists (Gollin, 1992). Such surveys are susceptible to "rigging" by blocks of organized voters, multiple voting, and demographically skewed respondent pools (Atkin & LaRose, 1994a).[2]

Although little work focuses exclusively on adoption of fax services, adoption of that technology has been related to 1-900 use and cable subscription (Atkin, 1995). Dobos (1988) also found adoption of fax related to use of other new telecommunication technologies in the office (e.g., teleconferencing). Given the interrelationships among these media adoption patterns, it's useful to examine parallel work with other media.

Diffusion of innovations research suggests that earlier adopters of new technology tend to be upscale, as was the case with pioneer videotext services (Ettema, 1989).[3] Despite that, adopters of 1-900 phone services were found to be lower in S.E.S. (Atkin & LaRose, 1994a; LaRose & Atkin, 1992). This led the authors to conclude these phone-based services were inexpensive substitutes for those who are not skilled in accessing other two-way polling alternatives (e.g., online services).

Aside from that, demographic differences between users and nonusers of audiotext and 1-900 polling were few, as adoption was more powerfully predicted by technology uses. These findings are consistent with research on uses of other media approaching the "flat" part of their diffusion curve--such as cable--given that differences between adopters and nonadopters level over time (Dutton, Rogers, & Jun, 1987a; Rogers, 1995; Sparkes & Kang, 1986). Reagan (1987, 1991), for instance, found that adoption of most telecommunication technologies studied was more powerfully predicted by (1) use of other such technologies and (2) attitudes toward them. Based on that work, we hypothesize that:

H1: Adoption of audiotext, 1-900 polls and services, and fax service will be more powerfully explained by technology use variables than by demographics.

In comparing these technologies, it is important to consider how people integrate new information technologies into existing patterns of behavior. This may be determined by compatibility between innovations and existing social norms or patterns of behavior (Rogers, 1995). An alternate approach suggests that new technologies are most likely to be adopted if they are functionally similar to existing ones. In the case of two of the three technologies studied here, the delivery system is not simply "compatible" with older established technologies, it is the century-old technology of telephony. And, "adoption" of audiotext and 1-900 services consists operationally of nothing more than "picking up the phone and dialing"--something virtually all Americans are accustomed to doing from childhood. Clearly, fax use differs from these innovative adjuncts in that it requires purchase of a separate device; at the same time, its cross between the solid, time-shifting characteristics of the written word (i.e., as in writing and mailing a letter) and the immediacy of telephony assures adopter familiarity with its functions.

Given the technology linkages noted above, it's useful to draw from traditions in diffusion research focusing on user needs met by technology. Researchers (LaRose & Atkin, 1992) found some support for the proposition that people are likely to adopt information technologies that are functionally similar to others that they already use. In that study, use of local audiotext information services was related to information technologies--videotext, ATMs and 800 numbers and telephone answering machines--which all share the function of providing information or services on demand to the user.

Additionally, we see a merging of conventional, entertainment-oriented mass media, including broadcast television, and more information-oriented point-to-point media, such as telephony.

This blurring of media definitions has been hastened by recent governmental actions to relax cross-media ownership and content delivery restrictions, as well as the continued development of fiber optics and Integrated Digital Services Networks (ISDNs). These actions should widen the field of phone information providers in the years to come.

As of 1995, 94% of all U.S. households had a telephone but fewer than 10% of them subscribed to some sort of videotext service (Lewis, 1995). Thus, while past work (LaRose & Atkin, 1992) documents the importance of technology compatibility, the question remains as to what types of functional similarity are important. As those authors suggest, this may be a function of compatibility with existing products. That is, since they involve fairly "low-tech" applications of a highly familiar telephone medium, audiotext services are easier to adopt than, say, videotext (which entails the virtual requirement of computer access). Clearly, audiotext does not involve the specialized business-oriented database services associated with the failed videotext services, where some degree of computer literacy is typically required.

Most audiotext studies suggest that technology needs and uses are far more explanatory of adoption than are demographics (e.g., O'Keefe & Sulanowski, 1992). However, researchers (Atkin, 1995; LaRose & Atkin, 1992) found inconsistences among technology-based predictors of audiotext, which may stem from the different user groups associated with each technology. Those researchers concluded that the "technology cluster" concept of adoption provides a better fit than general innovator profiles. For instance, audiotext appeals to those interested in using information services primarily for convenience, as users are also likely to use electronic mail.

Atkin (1995) found that 1-900 polling and use of fax machines occupy a similar dimension, as both allow instantaneous responses and access to information. The inability of this research to uncover relationships with other time-saving devices (e.g., speaker-phones, auto-dialers and cellular phones) mitigates against the convenience dimension noted in diffusion theory (Rogers, 1995).

Drawing from that work, we seek to explore compatible media uses across a wider range of conventional media than that studied earlier. Given that fax machine usage has been associated with more utilitarian applications, we hypothesize that it will be related to a different set of media than those fulfilling primarily entertainment needs. More formally,

H2: Use of audiotext and 1-900 phone services will be related to use of functionally similar entertainment media (e.g., TV, movies) while those used for utilitarian purposes (e.g., fax) will be unrelated.

Focusing on motivational measures, Keller (1990, B1) suggests that audiotext users display a fear of the unknown in needing to know "what the future holds." O'Keefe and Sulanowski (1992) identified several instrumental and entertainment gratifications associated with the adoption of audiotext. Drawing from that work, Jeffres and Atkin (1994) argue that researchers need to shift the focus toward communication variables and away from technological hardware. Their own results suggest that attitudinal variables, particularly those addressing communication needs served by computer technology, are more explanatory than demographics. Based on that work, we hypothesize that,

H3: Use of audiotext, 1-900 and fax services will be more powerfully explained by personal communication needs than media use or demographic variables.

One promising construct set that may help explain adoption of technologies that intersect with older hardware forms is that of "quality of life." Simply put, QOL assessments represent people's assessments of well-being (Andrews, 1980; Andrews & Withey, 1976), and may correspond to generalized states of pessimism or optimism about "how things are going in one's life." Recent research (Jeffres, Atkin, & Neuendorf, 1996) has identified QOL as an important predictor of media choice. In summarizing which domains of life contribute most to global QOL measurements, Campbell (1981) examined people's assessments of the quality of life available in the larger environment, e.g., neighborhoods, communities, nations, as well as personal assessments of their family, home, friends, job and health (Campbell, 1981, p. 159).

Since these studies have generally ignored the influence of media, it's useful to see how personal satisfaction measures relate to adoption of new phone adjuncts. Given the exploratory nature of this inquiry, we pose the following research question:

RQ: What is the relative influence of demographics, media use, communication needs and QOL assessments on people's use of audiotext, 1-900 numbers, and fax services?

METHOD

Study data are based on a telephone survey involving a regional probability sample from a metropolitan area of the Midwest. It was conducted during 1993, yielding a sample of 331 respondents using traditional random-digit dialing techniques and a CATI system. The survey was presented as a general poll about current issues, and contained items tapping respondents' opinions on a wide variety of items.

The dependent measures of use of **audio and phone-based**

information services used the following phrasings: "In the last month, how many times have you called a 1-900 telephone number?" ". . . how many times have you called a phone-based information service (for example, time, weather, sports scores)?" ". . . how many times have you sent or received a fax?" The metric value of each respondent's answer was retained.

An assortment of demographics and other **social indicators** was tapped: Gender, race, age, income, level of education, number of people in the household, number of children in the household, degree of liberalism (vs. conservatism; on a 5-point scale), and degree of Republicanism (vs. Democratism; on a 5-point scale).

Several items assessed respondents' **quality-of-life assessments.** First, respondents were asked to "imagine a scale from 0 to 10, with 0 being the worst place to live and 10 being the best place to live. On this scale, how would you rank the Cleveland area?" They also were asked to use a 0-10 evaluation scale (0=not at all confident, 10=highly confident) to rank their confidence in the local schools, local police, and area media. Several additional items tapped respondents' levels of optimism or pessimism regarding critical contemporary issues: AIDS, the economy, and sexual harassment. Two 11-point Likert-type items measured responses to the following statements: "I am concerned that I will get AIDS," and "I am better off economically now, than I was four years ago." Actual exposure to sexual harassment was measured via the item: "How many times in your life do you feel that you've been a victim of sexual harassment?"

Each respondent's pattern of **personal communication activity** was quantified via a set of eight items requesting estimated frequency of verbal interaction with people in the household, the neighborhood, in public places (neighborhood and outside the neighborhood), elsewhere in the city, at work, and on the telephone (local and outside of the area). The three home-and-neighborhood items were added in an index of localite personal communication, and the two outside-the-neighborhood (but non-work, non-phone) items were added in an index of city personal communication. This resulted in a final set of five personal communication activity measures.

Use of "traditional" media was operationalized using commonly-accepted measures which asked people for: The number of hours yesterday they spent watching TV, watching premium cable channels, and listening to the radio, the number of days last week they read a newspaper, the number of magazines they read regularly, the number of books read in the past six months, and the number of films seen in a theater in the past month.

Adoption of several **newer media** also was recorded. In addition to the three phone-based technologies described above, the measures included the number of videos viewed in the last month, whether there was a personal computer in the household, and how many years of experience the respondent had using a personal computer.

The median household income for the sample was in the category of $20,000-30,000, 50% were married, 64% were female, 92% were high school graduates or above and 34% were college graduates.

In terms of penetration for the newer media, roughly a third (31.8%) reported having a personal computer at home, with 49.4% having used a PC at some time. Almost two-thirds (64.4%) reported watching videos in the last month, and 16.4% watched a premium cable channel yesterday. All had access to a phone and nearly a third (32.9%) had used fax in the last month. Only 4% reported having called a 1-900 number in the past month, while 33.8% said they had called phone-based information services.

Correlational and multiple regression analyses were used to test the hypotheses. A hierarchical, forced-entry model was used to assess the relative contributions of the blocks: (1) social indicators, (2) quality of life measures, (3) personal communication patterns, (4) traditional media use, and (5) new media use. Standard tests for multicollinearity (i.e., inspection of tolerances, condition indexes and regression coefficient variance-decomposition matrices) revealed no significant problem for any of the three regressions.

RESULTS

Zero-order bivariate correlations for call-in service adoption and use of other technologies are displayed in the first column in each of Tables 1-3. As expected, an indicator of social status (education) is negatively related to 1-900 use

(Table 1; r=-.13, p<.05). The lack of any other relationships involving income or any other social indicators also contradicts the "upscale" adopter profile characteristic of diffusion research. Use of 1-900 numbers is also significantly (p<.05) related to a lower QOL in general (r=-.13), and lower confidence in the local schools and police (r=-13 and r=-.15). The typical 1-900 user is also more concerned with getting AIDS (r=.14), adding up to a profile of a more pessimistic, somewhat disenfranchised individual. Use of 1-900 is also linked to greater personal communication in the home and neighborhood (r=.20), greater movie attendance (r=.45), a higher rate of video viewing (r=.21), and greater phone-based information service usage (r=.33).

Table 1 about here

Significant correlates of audiotext adoption (Table 2) include use of 1-900 phone services (r=.33), cinema attendance (r=.22), subscription to premium cable (r=.16) and the proclivity to communicate with others in one's home and neighborhood (r=.20). Audiotext adoption is inversely related to the belief that the economy has recently improved (r=-.15).

Table 2 about here

Unlike 1-900 use, use of fax machines is related to income (r=.18), consistent with class-driven theories of adoption.

However, fax use is inversely related to age (r=-.22). In addition, fax users are more likely to indicate that they use telephones frequently for local calls (r=.24) and long distance calls (r=.25). They are more likely to communicate frequently at work (r=.23). Fax users are also more likely to indicate that they have been a victim of sexual harassment (r=.15). They're more likely to attend cinema (r=.17) and have more experience with using a PC (r=.28).

Table 3 about here

Focusing on the regression models, the prediction of 1-900 use (Table 1) explained a rather robust proportion of variance (R^2=.37). The first block, that of social indicators, contributed 5% explained variance, a non-significant increment. (The two social indicators to emerge as significant unique contributors were both negatively related to 1-900 use: Number of people in the household (beta=-.13) and eduction (beta=-.12).)

All others blocks contributed significant increments to the 1-900 equation. QOL variables explained 5% of the variance (p=.04); while no significant individual contributors emerged, the pattern for the block is one of greater 1-900 use by more pessimistic individuals. Personal communication activities contributed 4% to the equation (p=.02); no individual variables were significant, but the pattern is one of greater 1-900 use by those who communicate frequently in a localite fashion.

The traditional media use block was a strong contributor, explaining 17% of the variance ($p<.0001$). The single significant beta (.33) was that for theatrical moviegoing. And, the new media block added 5% to the equation ($p=.002$), with use of phone-based information services the greatest individual contributor (beta=.22).

The equation predicting use of audiotext services (Table 2) explained 23% of the variance. Use of this service was significantly predicted by the personal communication, traditional media, and new media blocks (contributing 6%, 6%, and 5%, respectively). Significant unique predictors included home and neighborhood interpersonal communication (beta=.18), premium cable viewership (beta=.16) and 1-900 use (beta=.27).

The regression model predicting fax use (Table 3) resulted in a moderate degree (28%) of variance explained. Here we see that use of functionally similar computer technology was a strong individual contributor (beta=.16), but that the new media block in which it was included did not provide a significant incremental R^2 (inc.=3%, $p=.10$).

Three other preceding blocks were significant. The social indicators block contributed a sizable 9% of variance ($p=.001$), and although no individual betas were significant, the pattern is one of greater fax use by those who are more conservative politically. The QOL block contributed 5% ($p=.04$), with sexual harassment victimization the biggest predictor (beta=.17) and a mixed pattern of confidence/pessimism with regard to the other independent variables in the block. Personal communication variables provided a respectable 7% variance explained, with work discussions (beta=.17), non-local phone conversations (beta=.15), and communication outside the neighborhood but within the city (beta=-.15) serving as significant unique contributors. The traditional media block did not explain a significant amount of variance.

DISCUSSION

Looking across our different prediction equations, we see that explanatory power varied greatly for the dependent technology variables. Media-use blocks were more explanatory of adoption than demographics for two of the three phone adjuncts studied--1-900 and audiotext use.[4] This leaves Hypothesis 1 with mixed support.

With regard to the functional similarity dynamic posited in Hypothesis 2, audiotext and 1-900 use are most powerfully predicted by each other, while both are related to use of such entertainment media as cinema. Utilitarian media such as the fax and computer, on the other hand, are unrelated to these telephone adjuncts. The only media predictor of fax use, in turn, is the computer. This indicates the existence of two distinct media clusters that, while not comprehensive, support the compatible media uses outlined in Hypothesis 2.

Turning to the relative influence of personal communication needs across our equations, we see they are among the more powerful predictor blocks in explaining audiotext and fax use. However, such needs are less explanatory than demographics in predicting 1-900 use and fax use, contrary to Hypothesis 3. This leaves the hypothesis with only weak support.

Finally, in addressing the relative influence of QOL variables in comparison with more conventional demographic, personal communication and media predictor blocks, we see that they are among the least explanatory of the predictor blocks across all of our equations. However, QOL variables did explain a modest yet significant proportion of variance for both 1-900 and fax use. For both dependent measures (and most clearly for 1-900 use), the pattern of QOL's contribution is one of greater new technology use by those most disaffected--those with lower confidence in local institutions, or those who have been most victimized by sexual harassment, are seeking out the new phone-based technologies.

On balance, the high degree of variance explained by our communication items compares favorably with that noted in past studies of videotext (Ducey, 1986; Reagan, 1987), audio information services (LaRose & Atkin, 1992; O'Keefe & Sulanowski, 1992) and cable (LaRose & Atkin, 1988; Reagan, 1991). Thus, on an aggregate level, our findings establish the importance of augmenting conventional demographic locators with a wider range of subjective measures, including people's communication needs.

This study's findings generally confirm the expectation that demographics and other traditional social indicators are not important in the prediction of use of these several audio information services. The modest role played by demographics here reinforces past findings (e.g., Atkin & LaRose, 1994a; Garramone, Harris, & Pizante, 1986; Jeffres & Atkin, 1994; LaRose & Atkin, 1992; O'Keefe & Sulanowski, 1992; Reagan, 1987, 1991), suggesting that their explanatory influence has, indeed, weakened over time. On the other hand, some research continues to identify socioeconomic correlates of new media adoption (including a meta-analysis of eleven surveys on the diffusion of home computers, by Dutton, Rogers, & Jun, 1987b; see also James, Wotring, & Forrest, 1995). The present results also suggest a need to reconceptualize class-driven theories of media adoption and use, formulated under the assumption that media use is a one-way, passively received process. Notably, this study actually identified a somewhat "downscale," disenfranchised profile for 1-900 users, refuting the historically respected notion of innovator as generally socioeconomically "upscale" (Rogers, 1995).

An explanation for this trend away from social indicators as predictors may be developed from notions presented by Dozier, Valente, and Severn (1986) and by Dizard (1989). First, one may posit that demographic characteristics matter little when an innovation's hardware is linked to established delivery systems, i.e., when the innovation is more "continuous" (Dozier et al., 1986).[5] Second, if one accepts that the age of the "Integrated Grid" (Dizard, 1989) has arrived, and more communication functions are subsumed under fewer hardware devices, it seems probable that over time, the importance of social indicators in the prediction of new technology adoption and use will continue to erode.

In the face of such erosion, attitudinal variables may be established as most explanatory. One tradition that should help contextualize adoption of new media is the uses and gratifications paradigm. Although some (Dimmick, Sikand, & Patterson, 1994; Train, McFadden, & Ben-Najiv, 1987) have investigated gratifications associated with general telephone use, little work has focused on telephone adjuncts.

And, these emergent gratifications may not be easily predictable. For example, there exists intriguing evidence that initial expectations that PCs would be primarily an entertainment medium were faulty, with home utilitarian uses eclipsing entertainment at a fairly early stage of the innovation's development (Dutton, Rogers, & Jun, 1987b). And, James, Wotring, and Forrest (1995) found information/education to be the top-cited function for BBS use, far exceeding entertainment (38% vs. 9% of responses, respectively).

This study discovered at least one rather puzzling finding that seems to contradict conventional wisdom regarding innovation clusters and uses and gratifications. Film-going, identified in previous research as related to the perceived importance of the highly "passive" media function of the traditional audience role as receiver (Jeffres & Atkin, 1994), was found to hold significant positive zero-order relationships with all three technologies studied here. Given the positive prediction of all but fax by home/neighborhood communication, one explanation may be that 1-900 and phone-based information service users tend to be social types--preferring to co-view their visual entertainment at the theater, and talking frequently close-to-home.

The related construct arena of communication needs also merits future investigation. This study found some important linkages between interpersonal communication activity and new phone-based media use. Ducey (1986) found a strong systemic relationship between communication needs and characteristics of computer-based services.

The integration of several bodies of literature--including diffusion theory, media communication needs, and QOL--is valuable since the distinctions between mass media communication and computer communication has become increasingly blurred. We expect the future to bring a more diverse set of uses and gratifications for "newer" technologies. As the novelty of disparate hardware devices diminishes, and as the "integrated grid" expands, emphasis will fall on the functionality of technologies. Figure 1 presents a posited typology (adapted from Atkin & LaRose, 1994b) that even within the relatively narrow range of "mass audience phone services," differentiates according to (a) primary mode of delivery (mass vs. interpersonal) and (b) typical content (entertainment vs. information). Such an analysis may in fact explain key differences in the three regression models developed here, and provide a template for future analyses regarding innovations that use primarily pre-existing hardware.

Figure 1 about here

Two of the three technologies studied here (1-900 use and use of phone-based information services) are continuous rather than discontinuous innovations (Dozier et al., 1986). The manner in which this continuity maintains is particularly noteworthy. That is, the very obstacles to adoption identified as critical by other new-technology scholars are circumvented via use of the tried-and-true, audio-based delivery system of the telephone. Much less relevant are Garramone, Harris, and Pizante's (1986) hindrances to adoption--expense that "tends to favor economic and intellectual elites" (p. 446), and the print-based nature of interactive media (that discriminates against the less-educated).

As the demand for telematic services grows, helping define a larger information economy, it will be important to understand user profiles for information services. Given that they provide a gateway to a growing number of information services, phone delivery systems are a major contributing factor to an understanding of attendance to information technologies in general. The implications for the strong consumer interest shown in audiotext applications are many. For, it presents an entree through which more than just the business sector can utilize advanced (i.e., nonconversational) phone services. As emerging

ISDNs promise to expand these offerings, to include as standard such services as voice-mail, call-back, call forwarding and call blocking, we can expect to see increased consumer uses for voice and data services. This, combined with the low costs for service providers, should enhance the potential for text services.

These new applications may help overcome the malaise observers have noted with past electronic services, such as videotext. In the same way that this study finds uses of phone-based innovations undifferentiated socioeconomically, we would posit that future studies will identify a similar pattern for computer-based innovations. A recent non-probability survey provides startling evidence that those under age 25 are as comfortable with computers as previous generations were with the telephone. The study found 99% of people born after 1971 had used a computer before the age of 10 (compared with only 7% of those in the older group). More than 66% of those born after 1971 call themselves "intermediate," "expert," or "power" PC users (compared with 19% of older respondents) (Beniger, 1996). Thus, computer-based innovations of the future may enjoy the same acceptance level and/or non-demographic-based diffusion that phone-based services are currently experiencing.

As we move fully to the era of the "integrated grid" elaborated by Dizard (1989), a convergence of users is expected, corresponding to a world of perhaps no discontinuous innovations. The continued evolution of more complex information services, such as the "net," is forcing scholars to reconceptualize the notion of communication. Findings reported here should help researchers develop more reliable measures of innovation attributes and adoption intentions. It will be important, then, in later work to continue our exploration of technology clusters based on functional similarities and needs met by existing media.

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Table 1. Hierarchical Regression Predicting Use of 1-900 Telephone System.

	Corr.	Final Beta	Inc. R^2	F & p
Block 1: Social Indicators			.05	$1.63_{9,272}$, .11
FEMALE	.07	.06		
NONWHITE	-.04	-.13*		
Q45-People in household	.03	-.15		
Q33-Liberalism	-.03	-.09		
Q51-Education	-.13*	-.12*		
Q52-Income	-.02	-.02		
Q48-Age	-.08	-.02		
Q32-Republicanism	-.05	-.09		
Q46-Children	.08	.15		
Block 2: Quality of Life			.05	$2.19_{7,265}$, .04
Q28-Sexual har. victim	.04	-.01		
Q5-Conf. in local schools	-.13*	-.08		
Q10-Better off econ.	-.10	-.04		
Q1-QOL metro. area	-.13*	-.06		
Q22-Concerned getting AIDS	.14*	.11		
Q7-Conf. in area media	-.02	.02		
Q6-Conf. in local police	-.15*	-.03		
Block 3: Personal Comm.			.04	$2.72_{5,260}$, .02
TALK1-Home & neighborhood	.20**	.09		
TALK2-City, outside neigh.	.07	.08		
TALK3-At work	-.02	-.04		
TALK4-Local phone	-.02	-.03		
TALK5-Non-local phone	.00	.02		
Block 4: Traditional Media			.17	$8.80_{7,253}$, .0000
Q37-Radio	-.04	-.08		
Q36-Premium cable	.02	-.07		
Q42-Books	.07	.02		
Q43B-Movies at theatre	.45**	.33**		
Q39-Magazines	.08	.00		
Q38-Newspaper	-.03	.02		
Q35-Television	-.00	-.02		
Block 5: New Media			.05	$4.02_{5,248}$, .002
Q43D-Phone-based info.	.33**	.22**		
Q40-PC in home	.02	.02		
Q43E-FAX	.09	.06		
Q43A-Videos	.21**	.07		
Q41-Years used PC	.12	.07		
TOTAL EQUATION:			.37	$4.34_{33,248}$, .0000

* - r or beta sig. at p < .05
** - r or beta sig. at p < .01

Table 2. Hierarchical Regression Predicting Use of Phone-based Information Services.

	Corr.	Final Beta	Inc. R^2	F & p
Block 1: Social Indicators			.02	$0.48_{9,272}$, .89
FEMALE	-.01	-.04		
NONWHITE	.01	-.00		
Q45-People in household	.04	-.02		
Q33-Liberalism	.03	.03		
Q51-Education	.04	.09		
Q52-Income	-.01	.05		
Q48-Age	-.06	.01		
Q32-Republicanism	-.08	-.05		
Q46-Children	.06	.02		
Block 2: Quality of Life			.04	$1.63_{7,265}$, .13
Q28-Sexual har. victim	.02	-.02		
Q5-Conf. in local schools	-.06	-.03		
Q10-Better off econ.	-.15*	-.12*		
Q1-QOL metro. area	-.01	.07		
Q22-Concerned getting AIDS	.06	-.02		
Q7-Conf. in area media	.09	.14*		
Q6-Conf. in local police	-.10	-.07		
Block 3: Personal Comm.			.06	$3.60_{5,260}$, .004
TALK1-Home & neighborhood	.20**	.18**		
TALK2-City, outside neigh.	.01	-.09		
TALK3-At work	.04	.02		
TALK4-Local phone	.07	.00		
TALK5-Non-local phone	.09	.11		
Block 4: Traditional Media			.06	$2.52_{7,253}$, .02
Q37-Radio	-.00	-.01		
Q36-Premium cable	.16*	.16*		
Q42-Books	.07	.03		
Q43B-Movies at theatre	.22**	.09		
Q39-Magazines	.04	.00		
Q38-Newspaper	-.01	.02		
Q35-Television	.02	-.06		
Block 5: New Media			.05	$3.31_{5,248}$, .001
Q43C-1-900 phone	.33**	.27**		
Q40-PC in home	.01	-.02		
Q43E-FAX	.03	-.00		
Q43A-Videos	.09	-.01		
Q41-Years used PC	-.01	-.07		
TOTAL EQUATION:			.23	$2.20_{33,248}$, .0004

* - r or beta sig. at $p < .05$
** - r or beta sig. at $p < .01$

Table 3. Hierarchical Regression Predicting Use of FAX.

	Corr.	Final Beta	Inc. R^2	F & p
Block 1: Social Indicators			.09	$2.17_{9,272}$, .001
FEMALE	-.09	-.01		
NONWHITE	-.07	-.02		
Q45-People in household	.05	.05		
Q33-Liberalism	-.07	-.05		
Q51-Education	.10	.01		
Q52-Income	.18**	.06		
Q48-Age	-.22**	-.04		
Q32-Republicanism	.12	.03		
Q46-Children	-.02	-.07		
Block 2: Quality of Life			.05	$2.14_{7,265}$, .04
Q28-Sexual har. victim	.15*	.17**		
Q5-Conf. in local schools	.04	.08		
Q10-Better off econ.	.12	.06		
Q1-QOL metro. area	.08	.08		
Q22-Concerned getting AIDS	-.00	-.03		
Q7-Conf. in area media	-.10	-.12		
Q6-Conf. in local police	.01	-.01		
Block 3: Personal Comm.			.07	$4.36_{5,260}$, .0008
TALK1-Home & neighborhood	.05	-.03		
TALK2-City, outside neigh.	.07	-.15*		
TALK3-At work	.23**	.17*		
TALK4-Local phone	.24**	.08		
TALK5-Non-local phone	.25**	.15*		
Block 4: Traditional Media			.04	$1.86_{7,253}$, .08
Q37-Radio	.09	.06		
Q36-Premium cable	-.07	-.01		
Q42-Books	-.02	-.09		
Q43B-Movies at theatre	.17*	.10		
Q39-Magazines	.12	.02		
Q38-Newspaper	-.10	-.08		
Q35-Television	-.10	-.00		
Block 5: New Media			.03	$1.88_{5,248}$, .10
Q43C-1-900 phone	.09	.06		
Q40-PC in home	-.19	-.00		
Q43D-Phone-based info.	.03	-.00		
Q43A-Videos	.11	.07		
Q41-Years used PC	.28**	.16*		
TOTAL EQUATION:			.28	$2.86_{33,248}$, .0000

* - r or beta sig. at $p < .05$
** - r or beta sig. at $p < .01$

gure 1. Mass audience phone service examples.

	Primary mode of delivery	
Content*	Machine-facilitated (mass audience)	Operator-facilitated (interpersonal)
Primarily entertainment	Audiotext, 1-900	Talk lines
Primarily information	1-800 (business), fax	Live operator

*--Based on content analyses and technology profiles reviewed in the literature; for a more comprehensive technology classification scheme, see Atkin and LaRose (1994b).

Endnotes

1. Print and electronic media have, in turn, become heavy users of phone-delivered text (or audiotext) services. Audiotext is being used in a variety of media promotion schemes, including "play along" audience participation games and instant polls. By keying in personal identification information, home participants in game shows or tune-in promotions can enter drawings for "valuable prizes," and become part of an extended audience that is actively in the game.

2. Yet the same might be said of rallies, the Internet and other public settings in which various groups jockey to present their views. Research suggests that activist sentiment is overrepresented in call-in polls (Bates & Harmon, 1993) and computer polls (Bates & Harmon, 1991).

3. As past work from Ettema indicates, videotext adopters are more likely than nonadopters to rate market data as important to their needs, though general news was less important for them. Adopters also tended to be younger, better educated and more likely to adopt products. With regard to user attitudes, adopters are most interested in access to market data, including up-to-the-minute commodity reports. Ettema concludes that adopters were most concerned with business applications, rather than those oriented toward consumers (e.g., shopping,cooking, banking or news services).

4. This study's truncated range on 1-900 use produced an overly-conservative test of its prediction--only 4% used last month; we need a longer time span to capture full variance of the variable. Given the strong prediction of this variable, increasing the range of the variable would be fruitful.

5. Indeed, fax, the most dynamically continuous innovation studied here, showed the strongest dependence on socioeconomic factors.

A Principal-Agent Approach to the Study of Media Organizations: Toward a Theory of the Media Firm

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A Principal-Agent Approach to the Study of Media Organizations: Toward a Theory of the Media Firm

Abstract

Media organizations are both political and economic actors. They have the ability to influence public opinion, voting behavior, and government policy. At the same time, they tend to be primarily motivated by profit-maximizing goals. Agency theory (also called the principal-agent approach) has been useful for understanding the behavior of individuals in profit-seeking organizations as well as individuals in political organizations such as legislatures and regulatory agencies. Applying principles from the agency theory framework to the behavior of individuals at various hierarchical levels of the mass media firm reveals important variables, such as monitoring costs, individual motivations, and implicit organizational control mechanisms, that may significantly impact media content. Focusing on these variables can help explain variability in media content across different media organizations.

A Principal-Agent Approach to the Study of Media Organizations: Toward a Theory of the Media Firm

Media organizations are both political and economic entities. One the one hand, they are able--and even expected--to influence public opinion, government policy, and citizen voting behavior. Whether one sees media institutions as legitimating the status quo (Herman & Chomsky, 1988), as "gadflies to insure that government serves the people" (Tuchman 1978, pp. 156-157), or even as an elite power group with their own political objectives (Akhavan-Majid & Wolf, 1991), the political dimension of the behavior of media organizations is difficult to deny. At the same time, media organizations' existence in a capitalist media system such as ours generally depends on their ability to maximize revenues and minimize costs (see Owen & Wildman, 1992). These economic imperatives have been found to impact media organization behavior at a number of levels, including news story selection (Epstein, 1974), format decisions (Underwood, 1993), and the style of presentation of news content (Bennett, 1988). Bantz, et al. (1980) go so far as to characterize news organizations as "news factories," thereby reinforcing the economic foundation on which news content is produced.

While these political and economic objectives of media organizations may overlap, the behavior of economic and political organizations--and individuals within these organizations--has typically been explained by separate theoretical frameworks. The profit-maximizing behavior of an organization, and of individuals within an organization, has been well-explained by the theory of the firm (Jensen & Meckling, 1976; Pratt & Zeckhauser, 1985). Agency theory (also referred to as the principal-agent approach), an integral component of the theory of the firm, has been a particularly useful tool for understanding the behavior of individuals within hierarchical, profit-seeking organizations (Jensen & Meckling, 1991). The principal-agent approach has also been adapted to the study of political organizations such as legislatures and regulatory agencies (Kalt & Zupan, 1990; Levine & Forrence 1990; Lott, 1987; Nelson & Silberberg, 1987). Here, maximizing votes or other forms of political capital typically replaces profit maximization as the overriding goal, with the voting public usually functioning as the principal and the elected representatives as the agents.

As was stated at the outset, mass media firms function on both a political and an economic level, therefore neither framework alone is sufficient to explain their behavior as it is manifested in media content. Media content has often been approached as at least partially determined by organizational-level variables within media firms (Bagdikian, 1973/74; Bantz, 1990; Hirsch, 1977; Shoemaker & Reese, 1991; Tunstall, 1991). Hirsch (1977) in particular stresses the "importance of organization structure as the immediate context in which mass media content is produced" (p. 25).

However, the theoretical insights developed within the literature on agency theory have yet to find their way into the theory and research on media organizations and the production of media content. (The focus of this research has been on _news_ organizations and _news_ content, and this is the focus here as well.) This paper incorporates both the economic and the political dimensions of the principal-agent framework to develop a theoretical approach to the study of the mass media firm. This analysis should provide new avenues of investigation into the sociology of media organizations. It should also help explain the often-times contradictory evidence presented within the literature focusing on the relationship between media ownership and media content.

Agency Theory

Agency theory has its origins within the larger framework of the theory of the firm. Jensen and Meckling (1976) offer a concise description of the principal-agent relationship:

> We define an agency relationship as a contract under which one or more persons (the principal(s)) engage another person (the agent) to perform some service on their behalf which involves delegating some decision making authority to the agent. If both parties to the relationship are utility maximizers there is good reason to believe that the agent will not always act in the best interests of the principal. The principal can limit divergences from his interest by establishing appropriate incentives for the agent and by incurring monitoring costs designed to limit the aberrant activities of the agent. (p. 308)

The key point is that while a principal may have methods of controlling an agent, without being able to perfectly monitor the agent's behavior, the opportunity for "shirking" on the part of the agent is likely to exist (Alchian & Demsetz, 1972, Pratt & Zeckhauser, 1985). This scenario often arises because, as Jensen and Meckling (1976) point out, monitoring is not a costless activity. The costs of monitoring may be prohibitive, such that the principal decides that the monitoring costs outweigh the costs incurred to the organization by the agent occasionally acting in self interest rather than in the best interests of the firm. Agency costs can vary from firm to firm according to factors such as the nature of the monitoring costs and the particular behavioral characteristics of the agent (Jensen & Meckling, 1976, p. 330).

In a hierarchical organization, agency problems can exist at any stage, whether between management and employee, or ownership and management. As Jensen and Meckling (1976) point out in their discussion of outside equity, "If the owner-manager sells equity claims on the corporation which are identical to his . . . agency costs will be generated by the divergence between his interest and those of the outside shareholders" (p. 312). The divergence of management's financial best interest from that of the firm may manifest itself in a number of forms, including management focusing on revenue-maximization as opposed to profit maximization, or focusing on short-term profits instead of the long run (Pindyck & Rubinfeld, 1995, p. 239). Also, agency conflict can arise "from the manager's tendency to appropriate perquisites out of the firm's resources for his own consumption (Jensen & Meckling, 1976, p. 313). In sum, the greatest agency losses arise when the interests or values of the principal and agent diverge substantially, and information monitoring is costly (Pratt & Zeckhauser, 1985, p. 5).

However, this is not to say that there are not methods to reduce shirking other than monitoring. Typically, such methods involve tying the individual's interests more closely to those of the organization (Jensen & Meckling, 1991, p. 24). Performance incentives are a good example. An agent with a financial interest in the performance of the organization may be less inclined to engage in self-interested behavior detrimental to the organization, assuming of course that the performance incentives outweigh the benefits that can be gained from self-interested behavior. Performance bonuses, commissions, and profit-sharing plans would all fall into this category. Attempting to hire agents with interests and objectives equivalent to that of the organization is another method of reducing agency costs. Pratt and Zeckhauser (1985) discuss an example in which Harvard University's real estate operation discovered that student athletes made excellent summer maintenance workers since it was in their best interests to engage in as much hard physical labor as possible (p. 15).

The above discussion of the principal-agent relationship has to this point focused exclusively on the behavior of individuals within a firm. However, this framework has been adapted to the behavior of individuals within political organizations as well (Moe, 1990). The same principal-agent problem exists, with elected politicians serving as the agents for their constituents. As with the firm, the degree to which the principal can monitor the agent is a determinant of the agent's ability to shirk. Such shirking in politics may take the form of the politician becoming "captured" by a particular interest group offering benefits in the form of monetary payment, political contributions, or perhaps lucrative post-public service employment. Or it could take the form of the abuse of public funds, public servant privileges, or the power of the office. While the election process can be seen as an effort to find an individual whose beliefs and interests closely mirror those of the constituency, as with the individual in the firm, a politician's behavior is likely to vary in accordance with the intensity of constituent monitoring.

Why is this political application of the principal-agent framework relevant to the study of media organizations? Because a common finding within the principal-agent literature on legislative behavior is that elected officials, when granted sufficient slack, engage in what is termed "ideological shirking" (Kalt & Zupan, 1990; Lott, 1987; Nelson & Silberberg, 1987). By this we mean that political actors will act in accordance with their political beliefs, even if those actions do not coincide with the beliefs of the majority of their constituency (and would therefore not be vote-maximizing behavior), if they have sufficient slack to do so (Kalt & Zupan, 1990, p. 107). Research in this area has found that measures of politician ideology provide significant explanatory power of voting behavior (Lott, 1987; Nelson & Silberberg, 1987) and that this explanatory power increases as constituent monitoring decreases (Kalt & Zupan, 1990). Thus, acting in accordance with a particular political ideology becomes a form of self-interested behavior analogous to "shirking" as it is defined within the literature on the behavior of individuals in firms. Given the political dimension of media firms, it is not unreasonable to expect that individuals within media organizations (editors, owners, reporters, etc.) might engage in ideological shirking and that this possibility needs to be factored into any analysis of the effects of organizational-level variables on media content.

A Principal-Agent Approach to the Study of Media Organizations

In applying the principal-agent framework to the study of media firms it is best to begin by outlining the major principal-agent relationships within the organization. Shoemaker and Reese (1991) break the media firm down into three organizational levels: ownership, management, and employees (p. 125). This is clearly a hierarchical arrangement, which results in two primary relationships: ownership-management, and management-employee. Integrating the political and industrial components of agency theory should shed light on both of these relationships and their implications for the behavior of the media firm and the production of media content.

Ownership-Management

It seems safe to assume that media owners are, for the most part, primarily concerned with issues of profit-maximization. Like any other capitalist entity, the survival of a media firm depends upon its ability to make a satisfactory profit. It has been argued that trends such as group ownership, public ownership, and conglomeration have made this imperative more dominant now than in the past (Bagdikian, 1992; Demers, 1991; Herman & Chomsky, 1988; Underwood, 1993). While there may be other goals, such as serving the public interest or espousing a particular political viewpoint (to be discussed later), profit-maximization generally dominates ownership concerns (Shoemaker & Reese, 1991, p. 121).

Clearly then, media ownership generally desires profit-maximizing behavior on the part of its managers. For the media firm, this behavior essentially involves two components: minimizing costs and maximizing audiences (whether it be at the level of the mass audience or within particular demographic groups) (Kaniss, 1991, p. 72). These two profit-maximizing constraints severely impact media content (Epstein, 1974, ch. 3; McManus, 1995). We can in fact think of Gans's (1980) two dominant news selection criteria, "availability" and "suitability," (pp. 81-93) as synonymous with cost-minimization and audience maximization. The most easily available news can of course be gathered at the lowest price, while the news content with the broadest possible appeal will maximize audiences.

Epstein (1974) found that "An analysis of the final [news story] choices at NBC . . . shows that with few exceptions, marginal stories that required little or no transmitting costs were chosen over stories that required both loop and mileage charges" (p. 194). Schudson (1978) has effectively demonstrated that the norm of objectivity in American journalism grew out of efforts to maximize newspaper readership. Overt partisanship limited audience appeal. True mass market circulation required appealing to readers across the political spectrum. Even the style and structure of news presentation are audience-maximizing constructs. As Bennett (1987) points out in his discussion of the "four information biases" in news, the tendencies to personalize, dramatize, fragment, and normalize events all grow out of an understanding of what appeals to the widest audience, rather than out of any public service or political objectives (pp. 22-63). Herman and Chomsky (1988) describe the profit orientation of media organizations as the "first filter" in their "propaganda model" of media content (pp. 3-14). Certainly, with profit-maximization likely to be the primary concern of ownership, we can expect it to do all in its power to assure that management behaves in accordance with this objective.

This situation grows more complex as we incorporate the political dimension of the media firm. Ownership may wish to advocate a particular political position, whether for profit-motivated reasons or purely political reasons (Page, 1995). Altschull (1984) argues that "the content of the press is directly correlated with the interests of those who finance the press" (p. 254). Bagdikian (1992) documents a number of instances of media owners affecting content regarding political issues in ways that supported their long-term financial interests (pp. 39-42). Akhavan-Majid and Wolf (1991) provide a good example in their discussion of the successful editorial war waged by the Washington Post and other major newspapers against a 1980 bill that would have allowed AT&T to launch an electronic Yellow Pages, thereby competing with newspaper classified advertising (p. 147). Pratte and Whiting (1986) found that editorializing in favor of broadcast deregulating was significantly more likely among newspapers with broadcast interests (p. 499).

Of course, ownership involvement may also take place for purely political reasons. Chomsky (1995) documents New York Times publisher Arthur Sulzberger's involvement in content decisions regarding a number of political issues (labor unions and the Soviet Union in particular) for ideological, rather than economic reasons. Donohew (1967) found publisher attitude to be the variable with the greatest explanatory power in terms of the content direction of stories on the Medicare issue.

However, constant and systematic direct involvement by ownership in content production is likely to be impractical. Therefore, regardless of whether the motivation is political, economic, or a combination of the two, ownership is faced with the classic principal-agent dilemma of how to insure that management adheres to its wishes. The agency theory literature tells us that one method of reducing agency costs and the need to monitor is to hire like-minded individuals. Indeed, this appears to often take place within the media firm (Epstein, 1974). As Parenti (1993) says, "Since many news editors and broadcast producers share the world view of their superiors, they seldom experience any ideological dissonance" (p. 38). Chomsky (1996), in his study of the New York Times, found that hiring practices were "by far the most important mechanism of ownership control" (p. 34). Other methods of ownership control include creating greater congruence between ownership and management objectives. Bagdikian (1992) demonstrates this practice in his discussion of Gannett's decision to issue company stock options to local managers in order to "tighten the golden handcuffs," as one Gannett executive described the decision (p. 86). Of course, advancement in any organization is also implicitly tied to adherence to ownership's objectives and is thus another potent method of control within the media firm (Epstein, 1974).

However, these methods of ownership control are not infallible. Conflicts of interest within the ownership-management relationship are still inevitable (Dimmick, 1979; Tuchman, 1977, p. 5). These may be the result of differing political views or professional values. Underwood (1993) documents the struggles journalistically trained editors face against superiors more concerned with profit-maximization than adhering to journalistic values and principles. Given that monitoring is not a costless activity, media management will at times have a certain degree of slack. Media firms are, in fact characterized by a lack of direct principal supervision over agents (Tuchman, 1977, p. 212-213). Particularly with the rise of group and public ownership of media outlets, the likelihood of ownership being on the premises to monitor and provide input is small. Media managers tend to report high degrees of editorial autonomy (Demers, 1993; Weaver & Wilhoit, 1986).

Of course, more slack is also likely to arise around situations or issues considered of lesser importance by ownership. Just as citizens will neglect to monitor the behavior of their political representatives on issues they do not consider important to their economic welfare or to their particular ideological preferences, (Stigler, 1971, pp. 10-11) so too will media owners ignore some issues they consider unimportant either politically or economically. The greater the importance to ownership of how an issue is handled by management, the greater the likelihood of ownership monitoring. As Bagdikian (1992) says:

> The rhetoric of the media corporations is consistent: They do not interfere with the professional selection of content for their newspapers, magazines, broadcast stations, book houses, and movie studios. . . . this is technically true for most operators in day-to-day, hour-by-hour operations, but it is not true for larger issues in which the media corporations have a strong self-interest." (p. 100)

This may explain why we see high degrees of conformity across newspapers owned by the same chain in regards to presidential endorsements (Akhavan-Majid, et al., 1991) while we might expect to find less homogeneity regarding issues of lesser political and/or economic importance to ownership.

As a result of monitoring costs and weaknesses in the control system, management may have a degree of slack that can be used for either traditional economic, or ideological, shirking. The individual characteristics of the manager in question will determine how the slack is consumed. Assuming the slack is used for ideological shirking, this may result in management choosing to slant or frame coverage in a particular way, to omit coverage, or perhaps to devote resources to a subject without consideration of profit-maximizing principles, but in accordance with professional values or ideological principles.

Management-News Worker

This section looks at the next stage in the media firm hierarchy--the relationship between management and news workers. Management is of course responsible for monitoring news workers and making sure that their contributions to media content support the ideological and/or economic objectives of ownership (or management's own objectives, if we're in an agency costs situation). As Epstein (1974) found in his study of network news producers:

> Their primary job, almost all producers agreed, is to enforce the standards of the organization for which they work. . . . the producer concerns himself with fitting

> individual events into a general format in a way which both fulfills the requisites of the program and avoids any violations of the network's policies." (p. 222)

However, given that news organizations are characterized by a lack of direct of supervision (Epstein, 1974; Kaniss, 1991; Tuchman, 1978) and the fact that monitoring is not a costless activity, news workers are likely to face a degree of slack in certain situations. Evidence indicates that news workers' attitudes and opinions often differ from those of their superiors (Breed, 1955, p. 327; Epstein 1974, p. 222). Breed (1955) cites two reasons why control over news workers is not absolute: 1) the existence of ethical journalistic norms, and 2) attitudinal differences between news workers and their superiors (p. 326). These characteristics of individual news workers of course have the potential to impact media content (Epstein, 1975; Lichter, et al., 1990; White, 1950). Thus, it may be that a journalist disagrees with his/her editor on how to cover a particular story on the basis of either political or professional principles. For instance, the journalist may feel a public service obligation to continue covering a story, while the editor may not deem devoting resources to continued coverage a profit-maximizing decision. Or editor and journalist may differ politically on how a particular political issue should be covered. Of course, unless sufficient monitoring is taking place, the journalist may be free to act according to his preferences, thereby consuming available slack in the form of either conventional economic or ideological shirking. Subsequently, content which in some way deviates from expected ownership and/or management preferences can be produced (Breed, 1955, p. 332).

Of course, as with the ownership-management relationship, non-monitoring methods of control have been developed and may successfully constrain agency problems. As with the control of management personnel, hiring practices are often cited as a method of controlling journalists and reporters (Bagdikian, 1992; Chomsky, 1996; Epstein, 1974). Epstein (1974) relates a network news executive's description of the hiring procedure for reporters: ". . . in each case, an enormous amount of time was spent checking their past performance, and if any trace of bias or ideology was found, they were rejected out of hand" (p. 206). On the flip side, editors could conceivably consciously or unconsciously seek out reporters with particular professional or political biases.

Another frequently discussed method of control involves the anticipation of censorship (Epstein, 1974). Editors need not constantly reject, edit, or rewrite stories to conform to their objectives if they have instilled within journalists a strong perception of what is acceptable and what is not. In a study of journalists, Mortensen and Svendsen (1980) found that "internal, explicit control anticipates the external, explicit control. One of our journalists wrote about this 'censorship in advance' among writers on politics" (p. 175).

Breed (1955) discusses the desire for career advancement and job security on the part of journalists as another effective method of editorial control. In his study, "all the younger staffers showed wishes for status achievement. There was agreement that bucking policy constituted a serious bar to this goal" (p. 330). Finally, the internalization of the organizational values and culture can be an effective control mechanism (Epstein, 1974, pp. 229-230; Kaniss, 1991, p. 75). Breed (1955) outlines the process by which a journalist learns the media organization's policies and norms. As with all of the methods discussed here, socialization is a relatively subtle process by which the journalist comes to internalize organizational norms and objectives, and thereby produces content more likely to coincide with the interests and objectives of his/her principals.

Of course, these are again not absolute methods of control and principal monitoring is never perfect.

> Executives may be ignorant of particular facts, and staffers who do the leg (and telephone) work to gather news can use their superior knowledge to subvert policy. On the grounds of both personal belief and professional codes, the staffer has the option of selection at many points. (Breed, 1955, p. 333)

This is the essence of the principal-agent problem, with certain important decision-making information resting with the agent, rather than the principal, combined with imperfect monitoring to provide the agent with the opportunity to subvert organizational interests in favor of his own.

Monitoring can also vary according to story types. Breed (1955) points out how the degree of contact between editor and journalist varies according to story types, with campaign stories involving direct executive supervision, assigned stories providing more journalist autonomy, and beat stories involving virtually no supervision on the part of the editor (p. 333). Similarly, Epstein (1974) found that network correspondents experienced significantly less overt control regarding stories dealing with nonserious, noncontroversial subjects and regarding stories originating overseas (p. 232).

Implications

Clearly, studies of the sociology of newsmaking and the impact of ownership on media content support many of the fundamental theoretical propositions of the principal-agent approach, though they have never explicitly acknowledged this framework. What does pulling this evidence together into this framework tell us about the nature of the media firm and how it produces content? First, it underscores the incredible complexity of the environment in which media content is produced. Within each hierarchical relationship there is the potential for conflict in terms of political, professional, and economic objectives. How these conflicts are resolved (or whether they are resolved) affects the shape of media content. Consequently, the characteristics of the individuals at each level of the hierarchy become important predictors of media content. The strength and direction of professional values, objectives, and political attitudes all become potentially significant variables in determining whether and how media content is going to represent particular issues. Unfortunately, while there has been a fair amount of research on characteristics of individuals within media organizations, there has been an overwhelming focus on journalists (see Becker, Fruit, & Caudil, 1987; Lichter, et al., Robinson, Sahin, & Davis, 1982; Weaver & Wilhoit, 1986), with less attention paid to the managerial level (see Demers, 1991, 1993; Hewitt & Houlberg, 1986; Peterson, et al., 1984) and, as Page (1995) points out, virtually no attention directed at media ownership (p. 9). Even more important is the fact that there has been very little research focusing on potential relationships between characteristics of ownership, management, or journalists and media content. The principal-agent approach acknowledges the motivations of individuals at various levels of the hierarchy as potentially strong predictors of the organization's behavior, therefore it is essential we delve deeper into understanding the motivations and interests of the participants at each level. As Hirsch (1977) says, "A simple and attractive design for locating and interpreting variations in outcome and in the rationales employed is to search for individual differences among the decision-makers" (p. 21).

Of course this focus alone is not enough. The principal-agent approach also tells us that the amount of monitoring taking place at both the ownership-management and management-news worker levels of the media hierarchy can potentially interact with the above variables in affecting content. While the intensity of monitoring behavior is certainly a function of the principal's interest, it is also a function of the costs associated with monitoring, which can themselves vary across different situations. The important question then, is what conditions affect the magnitude of monitoring costs? Certainly the size of the organization may be a factor. As the number of agents increases, the time and resources necessary to effectively monitor them increase as well. Perhaps this is why editors at larger newspapers have reported greater autonomy than editors at smaller newspapers (Demers, 1993). Ownership structure may be another important factor. An owner of a group of media outlets should find it more costly to monitor agents effectively than an independent owner of a single media organization. However, the fact that this variable is likely to interact with the other variables outlined here is underscored by the fact that research on the relationship between ownership type and content has to this point produced contradictory and ultimately inconclusive results (For reviews of this literature that reach this conclusion, see Baer, 1974; Napoli, 1994).

The type of issue involved also has an effect on monitoring costs. For complex political or social issues it may take more time and effort for ownership or management to accurately determine where their best interests lie and exactly how content should be affected to serve them. This is analogous to Calvert, et al.'s (1989) description of the principal-agent problem inherent in the Congress-regulatory agency relationship. In this relationship, slack develops "either from a lack of information about the implications of agency actions or lack of understanding about the implications of agency actions for ultimate policy outcomes" (p. 599). Certainly some issues are easier to cost-benefit analyze than others. Hirsch (1977) has pointed out that the extent to which a media worker can base decisions on personal rather than organizational criteria is not well understood, and that a major unanswered question is "What conditions are particularly conducive or detrimental to the exercise of personal discretion?" (p. 21). Closer examination of the effects of issue type and monitoring costs on media content is essential to answering this question.

Conclusion

In the end, the implications of the principal-agent approach for the study of the production of media content highlight some unexplored areas of investigation for those taking an organizational approach to the subject. Media content is affected by a complex interaction of organizational factors, including professional and ideological characteristics of the organizational members at all levels of the hierarchy, the methods of implicit control employed, and structural factors such as organization size and ownership type. Of course media content is a product of much more than organizational and individual characteristics and objectives. External influences, such as advertisers, sources, and the government certainly play a part as well (Shoemaker & Reese, 1991), though they have not been addressed in this discussion. This of course adds new levels of complexity to the already complex process outlined here.

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Self-Perceived Knowledge and the Third-Person Effect: Media Influence During the O.J. Simpson Trial

By

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Abstract

Self-Perceived Knowledge and the Third-Person Effect: Media Influence During the O.J. Simpson Trial

This study tested the "third-person effect" during the O.J. Simpson double-murder trial. The third-person effect predicts that people believe themselves to be less susceptible to media influence than other people. Findings from a nationwide telephone survey indicated that respondents' self-perceived knowledge about the Simpson trial was correlated with third-person perception of a perceived "neutral" media message about the Simpson case. Self-perceived knowledge was not correlated with third-person perception of a perceived "biased" message. It was suggested that the biased message primed respondents' perceptions of Simpson's guilt or innocence. The relative contributions of various predictors of third-person perception were assessed using regression analysis.

Self-Perceived Knowledge and the Third-Person Effect: Media Influence During the O.J. Simpson Trial

> *"I don't believe what I read in the papers, they're just out to capture my dime."*
>
> -- Paul Simon, "Have a Good Time."[1]

Many people share singer Paul Simon's suspicion of the press. Yet they do not doubt the immense "power of the press" to influence other people. The co-existence of these two perceptions support the "third-person effect" hypothesis that people believe that they are more discerning about and less influenced by media messages than the unspecified "others" who comprise public opinion.[2] The third-person effect has been succinctly summarized by the often cited quotation that the greatest impact of a mass communication message "will not be on 'me' or 'you' but on 'them'-- the third persons."[3]

This study examined the third-person effect during the O.J Simpson double-murder trial. The trial, which received intense media coverage, sparked fervid public debate over Simpson's guilt or innocence and race and justice in America. Simpson's ex-wife and her friend were slashed and murdered on June 12, 1994.[4] The ex-football star was discovered five days later being driven down a Los Angeles freeway in a white Ford Bronco. The resulting low-speed police chase, carried live on all the major networks, left the impression among a sizable proportion of the public that Simpson and fleeing from justice. Subsequent police evidence, including blood samples in Simpson's apartment and truck, also pointed to his guilt. During the televised trial, Simpson's defense countered police evidence, pointing to sloppy police work, mishandling of evidence, and hinting at a police conspiracy to frame Simpson. On October 3, the jury delivered not guilty verdicts in both murder counts.

Perceived Knowledge

The Simpson case involved numerous episodes. Some of the episodes were straightforward and damning for Simpson, such as the low-speed chase. Many medical and legal aspects of the case were complex and esoteric, such as technical matters pertaining to blood evidence. These episodes comprised the evidence that the public used as they debated the Simpson case in the court of public opinion. Each episode demanded varying degrees of public knowledge and expertise. With each episode, some people felt confident about their knowledge whereas others were forced to confess ignorance. Public knowledge about events in the news can be a critical component of the third-person effect.[5] Mutz reported a greater third-person effect among Stanford University faculty and staff than students regarding campus Apartheid issues. She attributed this finding to respondents' awareness of their expertise.[6]

Tiedge and his colleagues proposed that people who perceive themselves members of an "elite group" believe that they are "relatively unaffected by the potential power of the mass media."[7] Society's elites are distinguished by increased education, a factor positively correlated with public affairs knowledge.[8] Further, education provides people with an "enduring" receptivity to acquire knowledge.[9] From a third-person perspective, education is a conspicuous social divider that provides people with confidence in their own knowledge and awareness of their elite social status.[10] It is therefore not surprising that research indicates that education is positively associated with third-person perception.[11]

Just as education provides people with confidence in their superior knowledge, news media use and exposure should also increase people's confidence-- or what one study described as "assuredness"-- in their self-perceived knowledge.[12] Yet third-person research has largely ignored the contribution of media use.[13] Innes and Zeitz reported no support for radio listening or newspaper and magazine reading to increase third-person perception. Television viewing, however, was associated with the third-person effect.[14] Rucinski and Salmon also found mixed evidence for media use and third-person perception.[15]

An obvious question regarding public knowledge concerns whether people's self-perceived knowledge is related to their actual knowledge. If one takes the view that "perceptions drive attributions" of media influence, then actual knowledge is beside the point. Some research supports this proposition. Atwood reported that respondents who knew that earthquakes could not be accurately predicted were more likely than those who held incorrect beliefs about earthquake prediction to exhibit a third-person effect.[16] He conceded, however, that respondents' perceptions of the accuracy of their beliefs, rather than the actual correctness of their beliefs, might have explained the findings: "[P]erhaps the effects attributions may be adequately predicted by no more than one's own belief about the message and one's perception of the message beliefs of others."[17]

In a study that more directly indicated that perceptions drive attributions, Lasorsa compared perceived and actual knowledge about a highly publicized television mini-series dealing with life in America after a bloodless Soviet takeover.[18] The study, conducted before the collapse of the Soviet Union, found that 38.2% of the self-described politically knowledgeable respondents exhibited a third-person effect, compared to only 17.2% who evaluated themselves low in political knowledge. However, third-person perception was not a function of actual political knowledge, measured by a political knowledge index. Lasorsa concluded that "perceived political knowledge rather than real political knowledge fuels the third-person effect."[19]

Implicit in third-person theory is the assumption that it is generally undesirable to perceive oneself as influenced by the media.[20] But there are times when-- depending upon the individual's opinion about the issue in the media-- it is desirable to believe a media message that coincides with one's opinions. An experiment measuring the third-person effect of negative political advertisements demonstrated the importance of measuring people's opinions about the candidates.[21] Subjects believed that other people were more likely than themselves to believe a negative advertisement about a candidate whom they supported (i.e., third-person effect). On the other hand, people who saw a candidate they opposed in the attack ad believed that other people would be less likely than themselves to believe the negative message.

Hypotheses and Research Questions

This study examined whether respondents' self-perceived knowledge influenced third-person perception. It also investigated whether education and news media use contributed to third-person perception. Finally, respondents' opinions regarding Simpson's guilt were also considered as factors in third-person perception.

The following "knowledge" hypotheses were deduced:

H1: **Specific Knowledge Hypothesis**: The greater respondents' beliefs that they possess more knowledge about a specific news event than others the greater the third-person effect (about the event).

H2: **Technical Knowledge Hypothesis**: The greater respondents' beliefs that they possess more technical knowledge about a specific news event than others the greater the third-person effect.

H3: **Current Events Knowledge Hypothesis**: The greater respondents' beliefs that they possess more current events knowledge than others the greater the third-person effect.

H4: **Knowledge-Type Hypothesis**: Specific knowledge and technical knowledge will be stronger correlates of third-person perception than current events knowledge.

The fourth hypothesis was stated because knowledge about a specific event in the news (H1) or technical knowledge about a specific event (H2) are strong social dividers. Few people possess substantial or technical/esoteric knowledge about a specific news event. By contrast, current events knowledge (H3) is a relatively common form of knowledge.

Since news media use and education are thought to activate third-person perception, the following hypotheses were tested:

H5: **Education Hypothesis**: The greater respondents' education the greater their beliefs that news media messages exert greater influence on others than themselves.

H6: **News Media Use Hypothesis**: The greater respondents' news media use the greater their beliefs that news media messages exert greater influence on others than themselves.

The Simpson case involved a high-profile trial that sparked debate regarding Simpson's guilt or innocence. People's opinions regarding Simpson's guilt could have influenced their perceptions of media effects on themselves and on others. For example, news reports of the Bronco incident (portraying Simpson fleeing from justice) were consistent with the opinions of respondents who believed Simpson was guilty and inconsistent with the opinions of respondents who believed Simpson was innocent.[22] The following guilt and innocence hypotheses were predicted:

H7: **Guilt Hypothesis**: A predisposition to Simpson's guilt will be a negative correlate of third-person perception regarding a media message that is perceived to imply Simpson's guilt (i.e., "I believe he is guilty. The message implies he is guilty. Therefore I will be more likely to believe the "correct" message than other people").

H8: **Innocence Hypothesis**: A predisposition to Simpson's innocence will be a negative correlate of third-person perception regarding a media message that is perceived to imply Simpson's innocence (i.e., "I believe he is innocent. The message implies he is innocent. Therefore I will be more likely to believe the "correct" message than other people").

Two research questions will be investigated:[23]

R1: What combination of variables best predicts the magnitude of third-person effect?

R2: What combination of variables best predicts the magnitude of the alternative first-person effect (i.e., greater media effects on self than on others)?

Method

A representative sample of 605 adults (age 18 and older) in the continental United States was contacted by telephone during the evening hours of February 27 to March 3, 1995, about six weeks after the Simpson jury had been sequestered. The sample was drawn from telephone directories from the 48 states and the District of Columbia. Callers were trained undergraduate and graduate students. Three attempts were made to reach each residence. The rate of completed interviews was 71%.

The sample was stratified proportionate to each state's population. Pages from the residential sections of telephone directories from each state were randomly selected. Adjustments were made for the smaller type size in directory listings from highly populated areas because more listings appeared on each page. After a page was selected, a column was randomly selected, followed by a randomly selected line down the column. The last digit of the number was increased by one so that respondents with unlisted numbers could be contacted. Since females are disproportionately likely to answer the telephone in surveys, about one-fourth of the callers requested to speak with the adult male in the household with the nearest birthday.

Measuring Third-Person Perception

Estimates of the self-other media effects discrepancy or "perceptual bias" was obtained on three pairs of questions. The wording of one question referred to a factual matter in the case that implied Simpson's guilt; another question referred to a factual matter that implied Simpson's innocence. A third question did not refer to facts that implied guilt or innocence.

Respondents answered the questions using 5-point Likert-type responses ranging from strongly agree (coded as +2), to strongly disagree (-2), with a "neither agree or disagree" midpoint (0). In the "self" questions, respondents were asked whether (a) they could ignore what they learned in the news media about the Simpson trial and be fair and impartial jurors (no reference to Simpson's guilt or innocence), (b) news coverage of Simpson's Bronco ride on a Los Angeles highway made them think Simpson is more likely to be guilty (a message containing facts implying Simpson's guilt), and (c) news reports that Los Angeles police mishandled evidence made them think Simpson was more likely to be innocent (a message implying Simpson's innocence). The three parallel phrased "others" questions asked respondents to assess how the same media reports would affect "most other people in this country."[24]

The resultant three 9-point perceptual bias scales were constructed by calculating the difference between each individual's "self" and "others" response for each question (+4 to -4, with a zero midpoint). Perceptual bias effects ranged from a strong third-person perceptual bias (e.g., strongly agree I could be a fair juror and strongly disagree that other people could be fair jurors, +4) to a strong "first-person" perceptual bias (e.g., strongly disagree I could be a fair juror and strongly agree that other people could be fair jurors, -4).[25] The middle "no difference" score represented no differences between "self" and "others" (zero).

The independent variables were education (less than high school, high school graduate, some college, college graduate, post-graduate), race (coded as White, non-White), gender, age (18-29, 30-49, 50-59, 60 and over), and perceptions of Simpson's guilt (definitely guilty, probably guilty, really don't know, probably not guilty, definitely not guilty). Media and news media use measures included television viewing (grand mean of time spent watching on an average day and time watching yesterday, $r =$ .92, $p < .001$), days spent watching network news per week, days spent watching local news per week, and days reading a newspaper per week.

Measuring Knowledge

There were three measures of perceived knowledge: current events knowledge ("Compared to most people, how well informed do you feel you are about current events in the news?"), specific knowledge of the Simpson case ("Compared to most people, how well informed do you feel you are about events in the O.J. Simpson case?"), and technical knowledge about criminal justice issues in the Simpson case ("Compared to most people, how well informed do you feel you are about the legal issues in the O.J. Simpson case?). Each knowledge question was measured by a 5-point Likert-type scale ("Would you say you feel much more informed, somewhat more informed, somewhat less informed, much less informed, or would you say you feel about as well informed about the O.J. Simpson case as most other people?").[26]

Findings

Overview of Findings

The sample was 56% female, 84% White, and 13% Black. The rest were Asians, Native Americans, or Pacific Islanders. A separate question asked respondents whether they were Hispanic.[27] About 9% of the sample was Hispanic. The median age category was 30-49. The demographic variables were within the 4% sampling error of known population parameters.

Tables 1a and 1b report the distributions of perceptual biases and mean estimates of media influence on "self" and "others," respectively. The plurality of responses to the juror and Bronco messages exhibited a third-person effect whereas less than 16% exhibited a first-person effect to these messages. By contrast, the plurality of respondents showed no perceptual discrepancy to the police message. More specifically, Table 1b indicates a significant mean difference between perceived media effects on self and others in the third-person direction with the juror and Bronco messages ($p < .001$). The self-other discrepancy for the police message did not attain significance at the $p < .05$ level. Because the police message showed neither a plurality nor mean difference third-person effect, it was dropped from further analysis.

Tables 1a and 1b Go About Here

Hypotheses Findings

Table 2 reports the correlates with third-person perceptual bias. The third-person subsample was limited to respondents whose perceptual biases or discrepancies between media effects on "self" and "others" was a positive value that ranged from 1 to 4.[28]

Table 2 Goes About Here

Regarding the knowledge hypotheses, support was found for hypothesis 1 (i.e., specific knowledge) and hypothesis 2 (technical knowledge) with the juror message. These were the only significant correlates with the juror message. Hypothesis 3 was not supported. Current events knowledge was not correlated with third-person perception with either the juror or Bronco messages. None of the knowledge measures was correlated with third-person perception of the Bronco message. Hypothesis 4, which predicted that specific knowledge and technical knowledge would be stronger correlates of third-person perception than current events knowledge, was supported with the juror message, although none of the knowledge measures accounted for much variance.[29]

The hypothesized relationship between education and third-person perception (hypothesis 5) was not supported. Education was a negative correlate of third-person effect with the Bronco message. Hypothesis 6, which predicted a positive relationship between news media use and third-person effect, was not supported. None of the four media use variables was correlated with third-person perception of the juror or Bronco messages.

The "Guilt" hypothesis (hypothesis 7) was supported. The tendency to believe in Simpson's guilt was negatively associated with third-person effect with the Bronco message. The alternative "innocence" hypothesis (hypothesis 8) could not be tested because of the removal of the police message that implied Simpson's innocence.

Research Questions

Table 3a shows the results of the stepwise regression models to identify the variables that best predicted the magnitude of third-person perception among the third-person subsample. Table 3b reports the alternative first-person subsample of respondents whose perceptual biases ranged from -1 to -4.[30] Turning to the juror message in Table 3a, technical knowledge was a positive predictor of the magnitude of third-person effect. Newspaper readership was a negative predictor. No other variables entered the model.

Tables 3a and 3b Go About Here

The regression with the Bronco message yielded different results. Perceiving Simpson as guilty (i.e., O.J. Guilt) was a negative predictor of third-person effect. Education and race were also negative predictors of third-person perception with the Bronco message.

Table 3b reports the predictors of first-person perception. For ease of interpretation, data in Table 3b were re-coded so a positive coefficient reflects a greater magnitude of first-person perceptual bias. O.J. Guilt was a negative predictor of first-person perception of the juror message. This finding was problematic since guilt was not theoretically conceived to be related to the juror message. Education was also a negative predictor of first-person perception of the juror message. With the Bronco message, education and race were negative predictors. The negative predictors of education fit the education hypothesis to the extent that if education is conceived to be positively associated with the third-person effect, then education should be negatively associated with the first-person effect. However, given the limited research, it is presumptuous to deduce that the processes underlying first-person perception can be conceived as simply the reverse of third-person perception.

Conclusions

The findings in this study supported the hypothesis that self-perceived knowledge is positively associated with third-person perception. Self-perceived knowledge was thought to drive third-person perception because the individual's perception of his or her knowledge provides the individual with the confidence to see him or herself as smarter than other people and less vulnerable to harmful media messages. These findings come with the caveat that the type of knowledge, as well as the perceived objectivity of news reports, contributes to the third-person process.

Respondents' self-perceived knowledge about the controversial O.J. Simpson trial was associated with third-person perception with a perceived "neutral" message that did not imply Simpson's guilt or innocence. Technical and specific knowledge about the Simpson trial-- detailed forms of knowledge which enhance people's confidence in their superior knowledge-- were stronger correlates of third-person perception of the neutral message than current events knowledge.

On the other hand, self-perceived knowledge was not a correlate of third-person perception with a perceived "biased" message. The perceived "biased" message might have primed people's own beliefs about Simpson's guilt or innocence and caused them to more closely scrutinize the message. Further, the biased message might have caused people to use different cognitive strategies in estimating media effects on themselves and on others. Future researchers should further investigate whether perceptions of media messages as "straight news" or "opinion" might influence third-person perception.

Researchers also need to further examine the correlates and predictors of third-person perception to rebut criticisms that the third-person effect "is a phenomenon without a clear process explanation".[31] Finally, researchers need to study the third-person effect with a variety of messages involving different topics and issues.

Footnotes

1. Paul Simon, "Have a Good Time," in *Negotiations and Love Songs, 1971-1986* (New York: Warner Brothers compact disk, 1988, originally recorded in 1975).

2. The third-person effect was first enunciated by sociologist W. Phillips Davison. "The Third-Person Effect in Communication," *Public Opinion Quarterly* 47 (spring 1983):1-15. A growing body of empirical evidence supports the third-person effect. A recent literature review reported that 13 of 14 studies at least partially support the third-person effect. Richard M. Perloff, "Third-Person Effect Research, 1983-1992: A Review and Synthesis," *International Journal of Public Opinion Research* 5 (summer 1993):167-184. Also see Dominic L. Lasorsa, "Policy-Makers and the Third-Person Effect," in *Public Opinion, the Press and Public Policy*, ed., J. David Kennamer (NY: Praeger, 1992), 163-175; Klaus Schoenbach and Lee B. Becker, "Origins and Consequences of Mediated Public Opinion," in *Public Opinion and the Communication of Consent*, ed., Theodore L. Glasser and Charles T. Salmon (NY: The Guilford Press, 1995), 323-347.

3. Davison, "The Third-Person Effect in Communication," 3.

4. The fact that Simpson is African-American and his ex-wife and her friend were White exacerbated the racial dimension of the case.

5. The individual's reasoning regarding his or her knowledge was explained by Davison: "In a sense, we are all experts on

those subjects that matter to us. . . . Other people, we reason, do not know what we know. Therefore, they are more likely to be influenced by the media," 9.

6. Diana C. Mutz, "The Influence of Perceptions of Media Influence: Third-Person Effects and the Public Expression of Opinions," *International Journal of Public Opinion Research 1* (spring 1989):3-23.

7. James T. Tiedge, Arthur Silverblatt, Michael J. Havice, and Richard Rosenfeld, "Discrepancy Between Perceived First-Person and Perceived Third-Person Mass Media Effects," *Journalism Quarterly 68* (spring/summer 1991):141-154, 142.

8. Douglas M. McLeod and Elizabeth M. Perse, "Direct and Indirect Effects of Socioeconomic Status on Public Affairs Knowledge," *Journalism Quarterly 71* (summer 1994):433-442; Michael B. Salwen and Paul D. Driscoll, "Feeling Informed? The 'Assurance Function' of the Mass Media" *International Journal of Public Opinion Research* 7 (fall 1995):270-275; Serena Wade and Wilbur Schramm, "The Mass Media as Sources of Public Affairs, Science, and Health Knowledge" *Public Opinion Quarterly 33* (summer 1969):197-209.

9. Herbert H. Hyman, Charles R. Wright, and John Shelton Reed, *The Enduring Effects of Education* (Chicago: University of Chicago Press, 1975).

10. Salwen and Driscoll, "Feeling Informed?"

11. Albert C. Gunther, "Overrating the X-Rating: The Third-Person Perception and Support for Censorship of Pornography,"

Journal of Communication 45 (winter 1995):27-38;; Dominic L. Lasorsa, "Real and Perceived Effects of 'Amerika'," *Journalism Quarterly 66* (summer 1989):373-378, 529; Dianne Rucinski and Charles T. Salmon, "The 'Other' as the Vulnerable Voter: A Study of the Third-Person Effect in the 1988 U.S. Presidential Campaign," *International Journal of Public Opinion Research 2* (winter 1990):345-368; Tiedge, Silverblatt, Havice, and Rosenfeld, "Discrepancy Between Perceived First-Person and Perceived Third-Person Mass Media Effects."

12. Salwen and Driscoll, "Feeling Informed?"

13. This may be because empirical findings indicate low to moderate associations between news media use and public affairs knowledge, as well as inconsistent findings across media. Steven H. Chaffee and Joan Schleuder, "Measurement of Effects of Attention to News Media," *Human Communication Research 13* (fall 1986):76-107; Hugh M. Culbertson and Guido H. Stempel III, "How Media Use and Reliance Affect Knowledge Level," *Communication Research 13* (October 1986):579-602; Jack M. McLeod and D. McDonald, "Beyond Simple Exposure: Media Orientations and Their Impact on Political Processes," *Communication Research 12* (January 1985):3-34; John E. Newhagen, "Self-Efficacy, Media Use as Predictors of Current-Events Knowledge," *Journalism Educator 49* (autumn 1994):27-32.

14. J. M. Innes and H. Zeitz, "The Public's View of the Impact of the Mass Media: A Test of the 'Third Person' Effect,"

European Journal of Social Psychology 18 (October/November 1988):457-463.

15. Rucinski and Salmon, "The 'Other' as the Vulnerable Voter."

16. L. Erwin Atwood, "Illusions of Media Power: The Third-Person Effect," *Journalism Quarterly* 71 (summer 1994):269-281.

17. Atwood, "Illusions of Media Power," 279.

18. Lasorsa, "Real and Perceived Effects of 'Amerika'."

19. Lasorsa, "Real and Perceived Effects of 'Amerika'," 377.

20. Thomas Ashby Wills, "Downward Comparison Principles in Social Psychology," *Psychological Bulletin* 90 (September 1981):245-271.

21. Jeremy Cohen and Robert G. Davis, "Third-Person Effects and the Differential Impact in Negative Political Advertising," *Journalism Quarterly 68* (winter 1991):680-688.

22. Journalists would argue that news reports that seem to imply Simpson's guilt or innocence are not indicative of media opinions but are factual reports from which people infer guilt or innocence. We take this view, referring to media messages as "perceived" as "neutral" or "biased."22.

23. The hypotheses were stated in correlational terms. The questions are stated in predictive terms. The relative importance of combinations of variables will be tested through regression analyses.

24. The questions involving media coverage of the Bronco chase and police mishandling of evidence were re-coded so that

for all questions, the higher the score the lower the estimate of media influence.

25. This is also referred to in the literature as the "reverse third-person effect." Cohen and Davis, "Third-Person Effects and the Differential Impact in Negative Political Advertising"; Albert C. Gunther and Esther Thorson, "Perceived Persuasive Effects of Commercials and Public Service Announcements," *Communication Research 19* (October 1992):574-596.

26. Descriptive statistics on the overall sample were generated and a series of stepwise multivariate linear regression models on the first- and third-person "subsamples" were run. Data for each variable measure, for both the overall sample and first- and third-person subsamples, were examined for linearity and equality of variance using standardized residual scatterplots. Normal probability plots and de-trended normal plots were generated to check for the normality assumption. A base 10 logarithmic transformation was applied to all of the media use variables, bringing them to satisfactory normality. Maria J. Norusis, ed., *SPSS Introductory Statistics Student Guide* (Chicago: SPSS, Inc., 1990), 100.

27. The use of a separate question for Hispanic ethnicity is the correct procedure to distinguish Hispanic ethnicity from race. Too often researchers ask the race question as Black, White, Hispanic, or other. This categorization is problematic to White Hispanics and Black Hispanics. Gonzalo Soruco, *Cubans and the Mass Media in South Florida* (Gainseville: University Press of

Florida, 1996). See especially Chapter 2, The Problems with Hispanic Research, 17-33. After determining that Hispanic ethnicity was not a correlate of third-person or first-person effect on any of the three messages, White-Hispanics were classified as Whites and Black-Hispanics as Blacks.

28. This form of subsample analysis was suggested by Gunther. "Overrating the X-Rating."

29. The interpretation of "stronger" correlation is determined by examining the explained variance. Technical knowledge and specific knowledge accounted for 3% and 4% of the variance of the juror message, respectively. Current events knowledge accounted for less that 0.5% of the variance.

30. Respondents not displaying a perceptual bias (i.e., zero difference between "self" and "others") were dropped from the analyses.

31. Laurie Mason, "Newspaper as Repeater: An Experiment on Defamation and Third-Person Effect," *Journalism and Mass Communication Quarterly 72* (autumn 1995):610-620, 612.

Tables 1a and 1b: Distributions of perceptual biases and mean estimates of media influence on self and others

Table 1a: Distributions of Perceptual Bias

	First-Person Effects	No Difference	Third-Person Effects
JUROR	14.2% (n=82)	38.0% (n=218)	47.7% (n=274)
BRONCO	15.9% (n=88)	39.2% (n=217)	44.8% (n=248)
POLICE	28.0% (n=153)	39.9% (n=219)	32.3% (n=177)

Table 1b: Mean Estimates of Media Influence

	N	self	others	difference	t-value	p
		Mn. (sd)	Mn. (sd)			
JUROR	574	.24 (1.59)	-.61 (1.52)	0.85	10.67	p<.001
BRONCO	553	.00 (1.58)	-.71 (1.40)	0.71	10.21	p<.001
POLICE	549	.20 (1.49)	.13 (1.40)	0.07	0.94	p<.35

Note: Higher means reflect lower estimates of media influence. Paired t-tests.

Table 2: Zero order correlates of third-person effect

	Third Juror	Third Bronco
Knowledge		
Technical Knowledge	.16**	-0.07
Specific Event Knowledge	.20**	0.10
Current Events Knowledge	0.06	-0.06
Ecucation and Media Use		
Education	-0.03	-.19**
Television Viewing	-0.04	0.09
Local News Viewing	-0.09	-0.01
Network News Viewing	-0.02	0.00
Newspaper Reading	-0.09	-0.08
Guilt	-0.08	-.32**
Other Variables		
Gender	0.03	0.06
Age	-0.05	-0.01
Race	-0.04	-.19**
Third Juror	----	.13*

**p<.01

*p<.05

Tables 3a and 3b: Regression coefficients for factors predicting magnitude of third-person and first-person effect

Table 3a: Third-person subsample

	Beta	SE Beta	R-sq	F	d.f.	p
JUROR						
Technical Knowledge	0.18	0.06	0.03	8.71	1, 256	p<.01
Newspaper Read (lg)	-0.13	0.06	0.03	6.45	2, 255	p<.01
			Tot. R-sq. = .06			
BRONCO						
O.J. Guilt	-0.2	0.06	0.04	9.52	1, 223	p<.01
Education	-0.16	0.06	0.07	7.78	2, 222	p<.01
Race	-0.12	0.06	0.08	6.39	3, 221	p<.01
			Tot. R-sq. = .19			

Table 3b: First-person subsample

	Beta	SE Beta	R-sq	F	d.f.	p
JUROR						
O.J. Guilt	-0.21	0.12	0.04	2.97	1, 70	p<.09
Education	-0.19	0.12	0.04	2.93	2, 69	p<.06
			Tot. R-sq. = .08			
BRONCO						
Education	-0.26	0.11	0.05	4.03	1, 78	p<.05
Race	-0.22	0.11	0.05	4.09	2, 77	p<.05
			Tot. R-sq. = .10			

A Dialogue with the State:
An Ellulian Conception of Media Hegemony and Human Agency

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Abstract

Recent writings on the media have questioned the continued use of hegemony theory as a way of understanding the relationship between the state, the press, and the citizen. This essay proposes examination of the work of Jacques Ellul as a way of reconceptualizing these relationships. Ellul's tendency to focus on a technological state and a mass mediated society makes his thought a powerful alternative to Gramsci's when analyzing the environment of the 1990s.

Two years ago Celeste Michelle Condit (1994) stated that the term hegemony "has now passed from status as a buzzword for the academic left into everyday usage in the political lexicon" (p. 205). Yet just as the broader community is embracing the term, the scholarly community appears to be more circumspect. Both Condit (1994) and Barker-Plummer (1995) have recently investigated "hegemony theory" to judge its continued usefulness to the study of mass communication. Both argue that it is time to move beyond the framework of the last two decades and add new life to the study of ideology and the media.

In this paper, I propose that one way to add new life (at least new dialogue) to the field of hegemony and the media is to pay closer attention to the prolific writings of Jacques Ellul. Ellul's theoretical perspective offers fresh alternatives to some of the problems that have been noted with earlier views of the relationship between the media, the state, and the individual.

Difficulties with Hegemony Theory

Condit offers a very insightful description of the origins of hegemony theory and its historic permutations. She asserts that since the introduction of the concept by Antonio Gramsci, two distinct trends have developed (Condit, 1994, p. 207). One trend sees hegemonic communication as emanating from a single controlling entity. Condit claims that such an approach to the subject is closer to classical Marxism than to a Gramscian understanding. The other trend is more humanistic and suggests a multi-vocality in the modern state, but that multi-vocality is found in a milieu which guarantees that preferred readings will always rise to the top.

Though Condit sees much more explanatory power in the second trend than in the first, her goal is to note the problems with hegemony theory as a whole. In her view, the most important problem is a lack of historicity in the application of Gramsci. Gramsci wrote in a very specific historical, geographical, and cultural environment. The contemporary social setting in the United States looks vastly different from Italy before World War II. Most specifically, there is a noticeable difference between the industrial world of Italy in Gramsci's time and the technological world of 1990s America.

In spite of these differences, Gramscian analysis has seen great use in media studies. One oft-cited use of the approach is Todd Gitlin's book The Whole World Is Watching, which chronicles the rise and fall of Students for a Democratic Society. Gitlin (1980) tells the story of the sixties radical group and its interactions with the news media. In doing so, he tries to gain an understanding of how social movements live and die in the light of press coverage. His conclusion is that the SDS story has a message for any social movement that wants to bring about fundamental change in society. In a presentation that seems to split the difference between the "classical Marxist" branch of Gramscian analysis and the "humanistic" branch, he suggests that the modern mass media systematically suppress critical voices and squelch social change.

This is an important point for Barker-Plummer's (1995) study which, like Condit's, suggests that the traditional notions of hegemony are not advancing our understanding of the mass media. She sees Gitlin's work as representative of an approach that is shortsighted.

> Perhaps the most limiting aspect of a closed hegemonic model such as Gitlin suggests, is that it seems to deny the reflexivity or strategic agency on the part of

> social movement actors themselves to learn about and strategically use dominant systems and discourses--in this case journalistic routines and practices--as resources in themselves. (p. 309)

Human agency is thus the factor that this form of hegemony theory leaves out. And for Barker-Plummer, the absence of that important component in the communication process is a major factor in our lack of understanding of social movements and their rise and fall.

In the end, both Barker-Plummer and Condit propose new models for the relationship between the media and various groups within the public. Barker-Plummer refers to her new vision as a "dialogical" media-movement relationship. Condit labels what she creates as a "model of concord." Though there are differences between the two visions, there are also striking similarities. For our purposes, I will discuss three crucial areas in which the two authors suggest misconceptions have been made. As this is done, an Ellulian response to the misconceptions of hegemony theory is possible. The three areas of misjudgment are: the nature and role of the modern state; the nature of communication within the environment such a state creates; and the possibility and role of alternative voices. The purpose here is to suggest that the Ellulian theory of technique poses alternatives to these misconceptions, alternatives that have not received proper consideration. Before looking at the three areas listed here, it is necessary to examine Ellul's overarching concept of technique so we can see its relation to them.

Jacques Ellul and the Importance of Technique

One cannot begin to understand specific applications of Jacques Ellul's work without first understanding his broader theoretical approach, an approach that begins and ends with his concept of "technique." Technique, for Ellul, is the most important factor in the development of the modern social world. In his own words, it "is related to every factor in the life of modern man" (Ellul, 1964, p. xxvi). Though American readers might at first think he is speaking of "technology," such is not the case. Machines and technology are only a small part of technique (Ellul, 1964, p. 4). For Ellul, technique is "the totality of methods rationally arrived at and having absolute efficiency (for a given stage of development) in every field of human activity" (Ellul, 1964, p. xxv).

Ellul argues that it is this phenomenon that develops the character of our modern technological society. Though technique has been a part of civilizations dating to primitive times, modern technique is different from primitive technique both in degree and kind (Ellul, 1964, p. 62). Up to the nineteenth century, technique was under human control. It was at that juncture in history that technique took on a new character. Ellul saw seven characteristics of technique in modern society. Those are: rationality, artificiality, technical automatism, self-augmentation, monism, universalism, and autonomy (p. 79) George Benello (1981) offers a thorough discussion of the importance of these concepts. For our purposes, it is important to realize that in this new period technique begins to run free, and eventually reign over society. As Richard Stivers (1993) paraphrases Ellul's description of this historical transition, "Because of an unbounded faith in technology and a conscious intention to experiment with technology and find a diversity of uses for a single technique, technology came to dominate culture (p.516). The modern world of the twentieth century, from an Ellulian perspective, is thus radically different from the world of the eighteenth century.

As technique takes hold over the world, efficiency becomes the key determinant of human affairs. This is why Ellul's thinking applies to more than just technology. In the technological society human beings become so enamored of efficiency that they soon apply the principles of mechanics to all aspects of life. Clifford Christians (1976, p. 3) aptly suggests that technique "refers not to machines but machineness." Such machineness is not only applied to material production, but to social production as well. Not only is the work environment changed by the growing power of technique, the family, religion, the arts, and government are also affected. Given his background as a student of history and law, Ellul is especially interested in this last category. It is the nature of the state in the technological world which we will examine next.

An Ellulian View of the Modern State

Sandra Braman (1995) recently wrote that the field of communication policy studies has for decades been characterized by "statelessness" (p. 4). This might be said of the broader field of communication theory in general. Focusing on other dimensions of social processes, many researchers have tended to ignore fundamental questions about the nature of the state.

This is a crucial area of concern for Condit and her critique of hegemony theory. She goes to great lengths to demonstrate that the state as it was socially determined in the 1930s in Europe is radically different from the American state of the 1990s (Condit, 1994, p. 206). Interestingly enough, the period from the 1930s to the 1990s is the time in which Jacques Ellul did his writings. He published his dissertation in 1936, and he passed away in 1994. Moreover, the changes which bring forth the modern state were some of his greatest areas of interest.

Like Condit, Ellul sees the modern state as different from the state in earlier periods. Whereas Braman suggests scholars from the 1970s to the 1990s have tended toward statelessness in their work, Ellul (1967, p. xviii) was proclaiming from the beginning of that period that the state must be an essential part of analysis. He decried the inability of his fellow scholars to see the necessity of examining the state and also their inability to observe changes in its nature.

> There is no longer any question of a state in a classic sense. To think otherwise is a laughable error on the part of the majority of those who talk about the state, be they philosophers, theologians, publicists, politicians, or professors of constitutional law. They are speaking of the state in terms and forms appropriate to the state of the nineteenth century, or to that of Napoleon. The situation today is radically different. (Ellul, 1964, p. 279).

The source of the radical difference of which he speaks, is the integral change of the world brought about by the power of technique. If technique, as noted above, is the dominant factor in the modern world, then the modern state is under its power. Yet this does not lead to a decrease in the power of the state. Others have posited such a weakening of the state (Braman, 1995). In Ellul's view, as technique takes hold over the world, socio-political trends accelerate. This acceleration, in Ellul's words, "favors the establishment of a single political power center" (Ellul, 1967, p. xix). What should be noted is that Ellul is neither suggesting a unified capitalist hegemonic entity described by Marx's vision, nor a liberal pluralist political environment where competing political entities vie for power. On the first count he feels that Marxists (and this would include "classical Marxist" hegemony theorists) fail to understand that Marx's theory is adequate for explaining the 19th century, but not the twentieth (Ellul, 1967, p. 9). On the second count, he is by no means describing an environment of multi-vocality and ideological competition. For Ellul, the modern state is authoritarian in that its ultimate goal is uniformity and efficiency (Van Hook, 1981, p.129; Real, 1981, p. 120-121).

The reader should note that uniformity and efficiency are not the outcome of some deep-seated conspiracy on the part of capitalists or dictators. Many scholars have come to the realization that the modern social milieu does not manifest a classical capitalist-proletariat dichotomy. Condit (1994, p. 209), for example, states that class is not the "fundamental common denominator" in modern societies. The modern state is simply serving up what the people have requested. Ellul, proceeding in many ways from a theological rather than sociological premise, suggests that human beings have given up their birthright, the ability to be fully human. In their worship of machineness, human beings have come to see the machine as the model for all elements of their environment. Democracy, especially, is expected to become a smoothly functioning system and takes on technical form. "Technical advance gradually invades the state, which in turn is compelled to assume forms and adopt institutions favorable to this advance" (Ellul, 1964, p. 278). Such institutions are dehumanized by their tendency to see politics as a system whose ultimate goal is efficiency. Given the ascendancy of technique, which leads society to elevate means over ends, the state does not make political decisions, it makes technical decisions. And, since technical decisions are in many ways predetermined, there is only one route that society can take. The only question left is how politicians will deal with the fact that the political system is, in reality, getting loose from them. A useful metaphor would be that they are still on the horse's back, but their spurs and reins are so minute that politicians undoubtedly understand they have little or no control over the direction of the animal beneath them. In Ellul's view, the only way for politicians to maintain some semblance of control is through mass communication.

The Nature of Communication in the Technological State

Condit (1994, p. 208) might pique our interest in the Ellulian position by admitting two shortcomings in the use of Gramsci's work. First, Gramsci wrote in a culture that was not technologically motivated. Second, he lived in a culture that was not saturated with mass media. Ellul lived to see a world that is both technologically driven and mass mediated and he appears to have had a thorough understanding of both important aspects of modern societies.

Writing from his native France, he attempted to play the role of a prophet, warning of the impending doom of true democracy if technique were allowed to spread unencumbered. He claimed to have been ignored in his homeland, and widely read in the USA because his writings helped readers here understand what had already taken place around them (Ellul, 1990, p. xiv). What had taken place in the United States was a transformation from a democracy to a technological society which was artfully maintained through political illusion.

This maintenance is necessitated by the co-mingling of technique and politics. When the political realm is infiltrated by technique, the state grows in power. In the process, many of the state's features escape human control. As suggested above, many decisions become non-decisions because they are necessitated by efficiency. In the end, politicians turn into "impotent satellites of the machine, which, with all its parts and techniques, apparently functions as well without them" (Ellul, 1964, p. 254). Yet these politicians do not step down from their positions. Ellul claims there is still a need to maintain an illusion of politics especially in a world where politics has begun to invade every aspect of social life (Ellul, 1967, p. 8-24). Citizens put up with this increasing "politicization" because they feel they have some control over the political machine. To put it in 1990s parlance, the public would balk if they felt that they were "out of the loop."

The point worth noting is that citizens by their nature want some degree of control over their lives, and given the scenario described above, one might suspect individuals to react against the technological state. For Ellul, the primary role of the media in technological societies is to keep the people from balking. Such a reaction would not be efficient in the eyes of the state. The French social critic thus uses the term "propaganda" to refer to the process by which information is controlled with the intent of maintaining efficiency. Real (1981, p. 110) describes it as "the dominance of technical means over the flow of information through society." Propaganda, in this use of the term, is not the dissemination of lies by dictators and despots, it is the management of ideas with the intent of keeping the system running smoothly. "Propaganda is simply the means used to prevent these things from being felt as too oppressive and to persuade man to submit with good grace" (Ellul, 1965, p. xviii).

The need for such persuasion is clear if the state exists as Ellul describes it. The state is a finely structured machine that is intended to run with as little human interruption as possible. As noted above, politicians take a back seat to bureaucrats who are more attuned to the needs of the machine. In like manner, citizens must take a back seat to politicians, who are more attuned than they are. Therefore, while the modern western democracy is thought by many to operate on the basis of popular opinion, for Ellul this is not the case. Public opinion is much too unpredictable and cannot be given access to the political machine. Should the state be arranged to meet the ever-changing whims of the citizen, it would be paralyzed (Ellul, 1967, p. 134).

Such an interpretation is appalling to most who live in western democracies. These cultures have an image of themselves as true democracies where the free flow of information allows citizens to intelligently take an active part in the operation of politics. Many of those who do recognize problems in such cultures, argue that it is the restricted flow of information (i.e., the fact that there is not, in reality, a free flow) that causes problems. But for Ellul, the amazing mass of information available is just one more part of the technological world that overwhelms modern citizens. As Christians (1976, p. 5) describes it, the information explosion does not create a democratic person, rather a "crystallized" person, one who eventually can make no well informed political decisions.

The state and the media, then, have joined in a relationship where they can take advantage of the crystallized nature of the citizen. For Ellul, the link between the state and the media is one of efficiency. The state is interested in maintaining a semblance of democracy while operating under the guidance of technique. The media are interested in efficiently gathering, processing, and disseminating information. The state is able to take advantage of the media to improve its efficiency. While Ellul suggests that the state is not driven by public opinion, he does not claim that public opinion plays no part in the political illusion. Often the state uses the media to create public opinion in favor of efficient policies already determined by the state. Basically, "the government cannot follow public opinion, opinion must follow the government" (Ellul, 1965, p. 126).

Clearly this suggests that the state has great power over the media (a suggestion many in the media would question). But it also suggests a certain power for the media themselves. Ellul sees this as fitting neatly within the broader understanding of the social setting. Though the media might at times seem adversarial toward the state, they benefit greatly from the state's reliance on them as propaganda channels. Being products of the technical age themselves, the media have created a tremendous superstructure of organizations and technology. Once the superstructure was in place, it had to be used, thus "the need for information arose" (Ellul, 1967, p. 54). The state is an efficient source for such information. In addition, given the state's desire to deal with pressing issues in the most efficient manner--which often means diverting the citizen's attention to other issues--the public must be entertained with a constant flow of what Ellul (1967, p. 49) calls "the ephemeral." Such ephemeral information is much easier to disseminate if omnivorous media channels exist in symbiotic relationship with the state.

This is not to say that all of the blame for the political illusion must be laid at the feet of the state and the media. Ellul's orientation also suggests the complicity of the citizens themselves. His theological perspective does not only place guilt on social structure, some of it must go to individuals. The modern citizen is much too willing to accept the comfortable route of technique rather than make difficult choices that would require humanness. In the realm of mass media, this is manifest in the tendency to attach ourselves to the excitement of the political charade and ignore the more complex persistent problems of our local world. The citizen is all too ready to "abandon himself intensely in the human spectacle" (Ellul, 1967, p. 61). This is a far more pleasant prospect than facing the real problems of the world. The irony is that what we are doing is attempting to find comfort from the ravages of technique by seeking solace in the products of technique. Though speaking of the automobile, Ellul's comments in one of his most recent books might just as appropriately speak of our attachment to television.

> It is a diversion because it prevents us from looking at ourselves or meeting our neighbors of being content with one-to-one relations or contributing our personality to everyday life or being responsible at the heart of our community or on Sunday having an ultimate encounter with God. The refusal to do all of these things acts as a funnel to send us off in our cars. (Ellul, 1990, p. 375)

In abandoning those elements or our lives that are truly human, then, we sense an anxiety or sense of loss. For Ellul, the vicious cycle of the modern human condition is that this anxiety propels us to the world of technique and further abandonment of our humanity.

An Ellulian View of Human Agency

For both Condit and Barker-Plummer, a principal reason for questioning hegemony theory is its tendency to discount human agency and thus lead to despair. As noted above, Barker-Plummer (1995, p. 309) claims that hegemony theory "seems to deny reflexivity or strategic agency." Condit (1994, p. 226) offers a similar reading of traditional hegemony theory and offers a modified version in hopes that such "provides the springboard for a model of evolutionary social change produced by the interaction of multiple contesting groups." As we have just seen that Ellul's theory of technique stresses the fact that the citizen is partly responsible in modern social discourse, it will be useful at this point of our investigation to analyze his view on the possibility of human agency. In the previous section we noted that the modern citizen tends to get caught up in the flow of the technical society. The question to be addressed now is whether Ellul's orientation leaves any hope for the citizen to have a positive impact on the political environment.

The first point to be made is that Ellul's general position on the modern political state is thought by many to be extremely pessimistic. Given his view of the power of technique and the overwhelming adoption of it by state, media, and citizen alike, Ellul tends to see technological societies as oppressive, if not totalitarian. This totalitarianism "attempts to absorb the citizen's life completely" (Van Hook, 1981, p. 129). Ellul consistently warns us that the mechanized world of the technological society can leave nothing outside of its grasp and that all citizens are compelled to fit into the system.

Yet the crucial word in Van Hook's assessment of Ellulian theory is "attempts." The absorption is not guaranteed and Ellul does propose a degree of human agency. If the inhuman nature of technique is at the center of his critique, the logical contrast to such is "human" nature. Van Hook (1981, p. 132) himself writes, "Ellul often does write in a pessimistic vein. But he intends to challenge people to action rather than to encourage fatalistic resignation." Though Ellul consistently writes of the manifold deterrents of human freedom in today's social structure, he does not give up hope. If nothing else, the human still has the option of negativity.

> I will simply underline the fact that human life makes no sense if there is no possibility of change of some kind, if we ourselves have no role to play, if there is no history begun but not yet consummated. It is in this respect that negativity comes to the fore. In one of my books I thus adopted the well-known formula of Guehenno that our first task as human beings is to say no. (Ellul, 1990, p. 34)

Though technique pushes humanity toward machineness, Ellul pushes humanity toward humanness, arguing that there is something infinitely human in change.

It may be helpful at this point to explain what Ellul is not saying about change. Other scholars have recently come to similar conclusions. Ellul believes that all modern political states (whether capitalist, socialist, or communist) are being swept into the pattern of technique. Given this situation, political revolution is no longer likely or advisable. The disbanding of one state operating with technique would only lead to another state operating within the same framework. Moreover, the "will to dominate" is illimitable, and Ellul (1990, p. 25) sees this in all societies. Revolution in this view is futile, and rebellion is a more appropriate strategy. Stanley (1981, p. 79) links Ellul with Camus on this account, suggesting that there is no future in which "social unity is achieved and problems resolved."

Ellul can also be linked with Condit and Barker-Plummer on this issue even though some of their earlier assumptions were different. Condit (1994, p. 210) asserts that the model of revolutionary change held by many Marxist theorists "is not a necessary one." Barker Plummer (1995, p. 308-310) questions Gitlin's reform/revolution dichotomy that suggests that ideological change is an "all-or-nothing process." What both writers leave behind is a view that some new revolutionary social system will allow for uncoerced discourse and true democracy. Condit cites Laclau and Mouffe (1985) as an example of such a view.

Taking a somewhat Hobbesian approach to political theory, Ellul has never advocated such a position. Instead, he sees the modern technological state as a sovereign in need of dialogue. It is through uniquely human agency that such dialogue must take place. As Stanley (1981, p. 77) describes it: .

> Consequently, Ellul calls for groups to present themselves as counterweights to the sovereign power--not as negating the state, which is impossible, but as "poles of tension" confronting the state, creating a condition of equilibrium in which "we are not trying to absorb one factor by means of another."

Given the tremendous power of the technological state, this is Ellul's only option. Traditional political channels are products of technique. If citizens form groups that stand outside of the traditional political system, they can offer a response to the overwhelming voice of the state.

Such a response reveals crucial elements in Ellul's overall world view. For example, given his theological and sociological orientation, he sees this dialogue merely as a means of limiting power. As noted above, no revolution is envisioned. And, little in Ellul's writing indicates a vision of major evolution. Rather, Ellul is taking the position of an anarchist. He uses the term not to describe the lack of order, but the reduction of power.

> The real question is that of the power of some people over others. Unfortunately, as I have said, I do not think we can truly prevent this. But, we can struggle against it. (Ellul, 1991, p. 23)

Given that he refuses to assume a Marxist eschatological position, Ellul sees that this struggle will be constant. He sees no heaven on earth. What he does see is an eternal struggle for control in society because "covetousness and the desire for power" are human constants which cross all cultural boundaries (Ellul, 1991, p. 20).

As those who work within technique attempt to gain and maintain power, then, Ellul suggests that small political groups can do nothing but stymie such attempts. The duty of the political anarchist is to create a dialogue and bring to the world what it rejects and does not want to talk about. (Ellul, 1972, p. 39-40). This is a consistent theme of his work and is explained thoroughly by Stanley (1981).

Conclusions

This is as far as Ellul takes us on his own. Though he lays out a solid theoretical foundation (which like all theoretical foundations is open to challenge from many directions), he does not go into specifics as to how the citizen's response will be dealt with in the mediated world. It is possible that fearing the encroachment of technique even into such a dialogue, he purposely refuses to give clear guidelines on how groups should interact with the media. Though he offers a general world view to begin analyzing the political environment, he offers little in the way of practical advice on dialoguing with the state.

In concluding, I propose a nice blending can take place between Ellulian theory and some of the contemporary work on mass media. Writers such as Condit and Barker-Plummer can gain further insight from taking Ellul into account in their analysis. Ellulian theory can benefit from taking their understanding of the specific workings of the media into account. In the former, Ellulian theory helps to avoid statelessness in media theory. It also offers an intriguing blend between the power of the media and human agency. As for a deeper understanding (and questioning) of Ellul's work, it is noted here that it offers little concrete information on exactly how interaction between political groups and the state takes place given the intermediary nature of the media. Continued study by scholars such as Condit and Barker-Plummer can help us better understand the specifics of this dynamic.

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Third-Person Perception and Support for Censorship of Sexually Explicit Visual Content: A Korean Case

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Third-Person Perception and Support for Censorship of Sexually Explicit Visual Content: A Korean Case

ABSTRACT

This paper examines the third-person perception hypothesis in a unique Korean cultural setting, focusing on sexually explicit television programs. The results generally provide support for both the third person perception and its effect on the attitude toward censorship. In addition, this study was an attempt to distinguish third-person "others" according to gender difference based on the social distance notion, and the mass "medium" for censorship according to audience characteristics. The results showed a significant perceptual gap in the case of the opposite-gender others but not in the case of same-gender others. For regulation in cable-television, which is a more target-specific and personal choice medium, the third-person consideration was still a significant predictor of a pro-censorship attitude toward sexually explicit content delivered through cable television. However, unlike the results of previous third-person effect studies, the perceived impact of the sexually explicit visual messages on audiences *"themselves"* was found to be a more important factor than the third-person perceptual bias in predicting one's pro-censorship attitude.

Third-Person Perception and
Support for Censorship of Sexually Explicit Visual Content:
A Korean Case

I. Introduction

It is now fair to say that political censorship of the mass media's journalistic performance has been substantially eliminated from Korean society since the nation's recent democratization process began in 1987. Nonetheless, there are still areas that remain under strict government regulation and censorship. These are sex and violence in mass media content. The Korean Broadcasting Commission (KBC), a major body of the Korean government, continues to regulate sexual and violent content by "reviewing" broadcast programs dealing with these subjects. As in Western countries, concerns about the potentially harmful influence of media content on society have been the major factor leading government officials to maintain a pro-censorship position toward sexual and violent broadcast programs (e.g., Korean Broadcasting Commission, 1995). Particularly, in the case of sexual content, although the primary rationale for conducting censorship has been to protect the general audience, the harmful effect of these materials on female adults and children has been the most important consideration for male regulators, who represent the dominant majority on the reviewing committee of the Korean Broadcasting Commission (KBC, 1995; KBC, 1994).

What is the public's reaction to censorship of sexual and violent visual materials? Although a recent survey showed that the majority opposes governmental intervention in broadcasting (Korean Broadcasting Institute, 1994), to date, there has been no serious public outcry attempting to abolish censorship of sex and violence in television, unlike the case of political censorship. To Korean government officials it mat appear that the Korean public is also generally concerned about the potentially harmful societal influence of these materials as they are. Do Korean audiences support the censorship of sexual content out of concern for the negative societal impact? Or do they support such censorship simply because they themselves want to be secure from undesirable messages? It appears that those still remain as empirical questions.

In relation to this censorship phenomenon, one major communication research area that has drawn particular attention involves Davison's (1983) third-person effect. As many researchers succinctly summarized it (e.g., Gunther, 1995; Mutz, 1994; Perloff, 1993) the third-person effect hypothesis suggests that people generally have a tendency to estimate that a mediated communication will have more effect on others than on themselves. Further, it suggests the possibility that this perceptual bias may influence people's attitudes and behaviors. Recently, researchers have focused specifically on this second part of the third-person hypothesis, and attempts have been made to examine the linkage between third-person perceptions and censorship attitudes (Gunther, 1995; Rojas, Shah and Faber, 1995; McLeod, Eveland, and Nathanson, 1996). Findings generally suggest that the individual's general tendency to overestimate the media effect on others is an important factor in understanding a pro-censorship attitude.

The general purpose of this study was to examine the relationship between the third-person perception and pro-censorship attitudes toward sexually explicit visual content in the context of Korean society. In particular, this study aimed at furthering third-person effect research by incorporating the notion of "distant others" while differentiating the "third-persons" according to gender. Also, it examined how the linkage between third-person perception and pro-censorship attitudes may vary according to the characteristics of different visual media through which sexual content is delivered.

II. Literature Review and Hypotheses

1. The regulation of sexual content in Korean broadcasting

The Broadcast Act of Korea enacted in November, 1987, empowers the Korean Broadcasting Commission (KBC) to take measures to promote the public interest and to heighten the quality of program content broadcast in Korea. Koreans may agree that the KBC has done a fair job in terms of protecting the general public interest; however, it is true that this institution has actually conducted censorship of all broadcast programs, not only entertainment programs, but also current news programs. The KBC itself appears to believe that censorship is rather a strong word for the Korean public, and prefers the term, "Shim-ui (reviewing)" in the process of regulating the content of broadcasting.

In the KBC's code for program review, sections 15 through 17, section 20 and section 49 provide the rationale for regulating sexual content. Under these sections, the regulation of sexual content is justified for the following reasons: 1) to protect children and adolescents (section 15); 2) to protect family values (section 16); 3) to protect social norms and ethics (section 17); 4) to protect the general audience (section 20); and 5) to protect sexual norms (section 49). As we can see from these rather vague phrases, the underlying assumptions behind these reasons are 1) that the audience is generally vulnerable to mass media content, and 2) that government institutions perceive potential negative social consequences in mass media materials.

In practice, however, since Korean society has a cultural heritage of patriarchy and male-centered norms and ethics, censorship in Korea has been applied more frequently for protecting females and youths than for protecting adult males (Kim, 1994). Although most sexual crimes are committed by adult males (e.g., Korean Institute of Criminology, 1992), in the process of regulating broadcasting for sexually explicit content, the major reason for censorship is the prevention of socially harmful behaviors of children1) and housewives2), but not of adult males, who may potentially have a more harmful impact on society as a whole. Up to this point, there has been no indication that Korean regulators are seriously concerned about the negative influence of mediated sexual content on adult males' socially unacceptable sexual behaviors, such as sexual crimes in imitation of television content.

Although the term "sexually explicit" has sometimes been used as an equivalent of pornography in the U.S. (Harris, 1994), this term is used somewhat differently in Korea. Since Korean society does not allow any forms of pornography, the phrase "sexually explicit" is used rather broadly to cover simple nudity as well as obscene and indecent sexual content. Although the term is applied to pornography and sexual intercourse in the media in the regulation of foreign broadcasting programs, Korean society's conservative attitude toward the subject of sex appears to give the term broader usage (Kim, 1994).

Also, it has been pointed out in comparisons with other subject matters that the KBC's regulation is centered on sexually explicit content rather than violent content or the violation of constitutional values, social norms and ethics (Kang and Lee, 1990). Because this trend continues, Korean producers have recently questioned why the KBC censorship criteria are more severe for sexual content than for violent content in television drama and entertainment (KyungHyang Newspapers, Feb. 18, 1995). Along with deregulation of the import of foreign cultural products, the massive influx of western culture has brought changes in Korean society, in particular a movement toward more sexual openness (Kim, 1994). Nevertheless, traditional censorship criteria concerning sex in broadcasting regulations remain unchanged. In social discussions regarding censorship, even the progressive newspapers' editorials[3] have supported the traditional broadcasting regulations for sexual content (e.g., Hangyore Newspaper, Oct. 3, 1995).

2. The third-person effect

1) Examination of the perceptual gap

Since Davison (1983) proposed the third-person effect hypothesis, numerous studies have examined the individual's perceptual bias of judging a greater media effect on others than on oneself. This perceptual part of the third-person hypothesis has been tested with various mass media content, such as defamatory news stories (Cohen, Mutz, Price, and Gunther, 1989; Gunther, 1991), negative political advertisements (Cohen and Davis, 1991), pornography (Gunther, 1995), product advertisements (Gunther and Thorson, 1992), mini-series dramas (Lasorsa, 1992), news stories about controversial issues (Mutz, 1989; Perloff, 1989), and other forms of political communication in an election (Rucinski and Salmon, 1990; Wang, 1995). As many reviewers of the third-person effect research have indicated, the first component of the third-person effect has been supported by many robust findings (Gunther, 1995; Mutz, 1994; Perloff, 1993).

Some studies have tested the third-person effect hypothesis in the Korean context. Using a news story about the Kwangju protest, Kim, Ahn, and Song (1991) found a third-person perceptual gap among college students in Korea. Also, Park (1990) reported observing the third-person effect concerning a political violence news story during the 1988 Korean presidential election campaign. As Perloff (1993) indicated, these studies show that the phenomenon of the third-person effect is not culturally bound. Hence, it was expected that the perceptual part of the third-person effect would also be found in the context of Korea. In particular, using sexually explicit visual messages (containing either mild nudity or sexual violence), a prediction was made:

Hypothesis 1
People will perceive sexually explicit visual messages to have a greater negative effect on others than on themselves.

In examining the conditions of the third-person effect, several researchers have suggested that social distance from others can be an important factor facilitating the magnitude of the gap between the perceived communication effects on others and the self (Cohen et al., 1988; Cohen and Davis, 1991). Cohen et al. (1988) and Cohen and Davis (1991) found that the strength of the third-person effect increased with distance. Previous third-person effect studies in Korea also applied this social distance notion ; Kim et al. (1991) and Park (1990) both reported that people's perceptual gap increased as "others" moved from their own community to those from other communities.

As Perloff (1993) noted, the social distance notion can be distinguished by two views. One is based on the notion of similarity, whereby social distance falls along a continuum going from "just like me" to "not at all like me." The other is that social distance is represented by a continuum that goes from "my closest group" to "my largest group" (Perloff, 1993, p.175-176). While most previous studies focused on the second view of social distance (Perloff, 1993), the present study adopted the first view as differentiating others. In particular, this study was an attempt to argue that "gender difference" is the important factor when individuals categorize others' responses to sexually explicit visual content.

Perceived similarity and familiarity between genders has been explored mostly in children and youth socialization studies using social distance scales (e.g., Bonney, 1954; Singleton and Asher, 1977; Tyne and Geary, 1980). These studies suggested that the social distance of same-gender peers is closer than that of opposite-gender peers. In the case of Asian youth in particular, Brewer, Ho, Lee and Miller (1987) examined the perceived similarity to self and others, and found that gender was the primary categorization for distinguishing others. For instance, Hong Kong school children rated same-gender others as more similar than those of the opposite gender (Brewer et al., 1987). Although we did not directly measure social distance in this study, we assumed that individuals judge same-gender others as closer to themselves than opposite-gender others. Particularly in the case of perceiving the communication effects of sexually explicit visual content, the gender difference was believed to be a significant criterion in determining social distance from others, since the consumption of such content (e.g., pornography) is usually shared with same gender peers (Educational council of Pusan, 1996). Particularly in Korean society, since most people have been socialized under the formal education system in which classes and schools are separated according to student gender, this socialization environment appears to permit Koreans to share common experiences more with same-gender peers. We posited that people tend to judge that same-gender others' reactions to sexually explicit materials are similar to their own. Hence, we predicted:

> **Hypothesis 2**
> The magnitude of the gap between perceived first- and third-person effects will be greater when others are of the opposite gender than when others are of the same gender.

2) Linking the third-person effect with attitudes and behaviors

Although the phenomenon of the third-person perception is worth examining in various contexts, the more interesting and important part may be the second component of the third-person hypothesis, since it implies changes in attitudes and behaviors because of this perceptual bias. Mutz (1994) and Perloff (1993) both suggested further research efforts to link this third-person effect phenomenon with other concepts. However, to date, not many studies have attempted to examine the second component of the third-person hypothesis. Mutz (1989) sought to link the third-person effect and the theory of the spiral of silence based on the assumption of the "hostile media phenomenon" (Vallon, Ross, and Lepper, 1985; Kressel, 1987). Her study on a divestment issue on the Stanford campus suggested the possibility that people's biased perceptions about the media effect on self and others can be connected to public expression behavior. She found that third-person perception decreased the likelihood that people would express their opinions publicly in the case of a very public measure, such as willingness to sign a petition.

Since previous studies suggested that third-person perceptions could be manifested more for negative mediated messages (e.g., Gunther and Mundy, 1993; Gunther and Thorson, 1992), perhaps the most suitable research area in relation to the second component of the hypothesis is that of media regulation or censorship. Rucinski and Salmon (1990) studied the relationship between the third-person perception and pro-regulation attitudes toward media content during election campaign periods. Yet third-person perception did not play a role in predicting support for external control of media content in their study.

More recently, studies on censorship attitudes have produced more positive evidence that third-person perception may work in determining one's attitude toward censorship. Gunther (1995) found a significant relationship between third-person perception and a pro-censorship attitude toward pornography, even after controlling for sets of variables potentially related to censorship attitudes, such as gender, attitude toward free expression, and exposure to pornography. A significant positive relationship between the third-person perception and censorship attitude was also reported by other studies dealing with different media messages, such as violence on television (Rojas, Shah, and Faber, 1995) and violent and miscgynic rap music (McLeod, Eveland, and Nathanson; 1996). In this study, it was expected that this positive relationship would be found in the case of sexually explicit visual content in Korean program. Following the suggestion of these previous studies, we predicted:

> **Hypothesis 3**
> The magnitude of the gap between perceived first- and third-person effects will be positively related to pro-censorship attitudes toward sexually explicit visual content.

Further, this study was an attempt to include the notion of media characteristics in linking the third-person perception and pro-censorship attitudes. As noted in the discussion of Trauth and Huffman (1985), policy makers have generally attempted to distinguish three kinds of media: over-the-air television, cable television and film. Trauth and Huffman (1985) pointed out the necessity of using different standards in regulating different media based on each medium's intended/actual audience and manner of distribution. It appears that this position has been accepted in Korean society as well, and Korean public officials have applied rather loosened standards in reviewing programs for cable television and video release. For instance, since the recent launching of cable television in 1995, the Korean Cable Commission (KCC), which is independent from the Korean Broadcasting Commission, has performed the censorship role, particularly for cable programming, with looser standards (KCC, 1994). Behind policy makers' use of multiple standards for regulation is, of course, the logic that the intended audiences of cable can or will manage the potentially harmful influence of mediated content.

In relation to censorship attitudes, we assumed that the characteristics of mass media are an important factor in the maintenance of multiple attitudes toward censoring different types of media. In other words, it was posited that Koreans are able to use certain socialized media schemas when considering their own positions on censoring visual materials, and thus have different standards, just like policy makers. If this assumption holds, one can expect that the major reason for the Koreans to support censorship of more personal-choice and target-specific media is not just to protect others, but to protect themselves, who may or will be the potential consumers. Hence, it was expected that the relationship between the third-person perception and a pro-censorship attitude is weakened as the medium of sexually explicit content moves from one that is more open to the public to one that is more target-specific. Here, we predicted:

> **Hypothesis 4**
> The perceptual gap between perceived first- and third-person effects on sexually explicit visual content will be more highly related to pro-censorship attitudes toward network broadcasting than to those toward cable television.

III. Methods

1. Sample

In order to test the third-person effect hypothesis in the

Korean context, we adopted a self-administered survey method after presenting two video stimulus materials. Since the study design required showing sexually explicit video clips to respondents, the sample was drawn from two universities and two high schools located in Seoul, Korea. In particular, the sample was chosen from both introductory-level social science courses at two universities and four classes in two high schools. The survey was conducted from July 3rd through 7th in 1995. The sample size was 389, and was almost evenly proportional with respect to gender. None of the respondents in our sample were familiar with the third-person effect hypothesis.

2. Procedure

A videotape was constructed in order to contain sexually explicit visual scenes. All the content-regulated materials in 1994 from the archives of the KBC were first reviewed; then from among them we chose programs that had received post-warnings because of sexual explicitness. From these, two visual clips4) were edited to one minute lengths each at the video laboratory of the Korean Broadcasting Institute (KBI). Between these two materials, we included several television programs, such as news, documentary, talk shows, comedy, and music videos in order to isolate the influence of these two materials. The two visual clips could be distinguished such that one depicted sexual violence and the other portrayed sexual intercourse with mild nudity. Since high school students were included in the sample, we selected only scenes that had already aired on network television and had received post-warnings from the KBC. Also, before the survey began, subjects were told to leave the classroom at any time if they felt uncomfortable viewing the sexual visual materials.

Two sets of questionnaires were used for the survey. Before showing the prepared visual clips, we administered the first questionnaire, which included general media use items, demographics, and several questions potentially related to attitudes toward censorship, such as attitude toward free expression, attitude toward sexual openness, and exposure to X-rated content. Then, the respondents were instructed to carefully watch a total of 11 segments of video clips and to answer the second questionnaire items right after each segment of content ended. The second questionnaire dealt mostly with the evaluation of each content segment. The questions measuring the third-person effect and support for censorship were presented only after showing the two sexually explicit visual clips.

3. Measurement

Respondents were asked to indicate separately whether the media content shown in the video clip would have an effect on self and other people in terms of moral values. Yet since one of the purposes of the study was to distinguish self from "others" according to gender differences, we asked the respondents to judge separately the media effect on other people of the same gender and those of the opposite gender. We used the same five-point scale used by Gunther (1995), with one representing "large positive effect" and five representing "large negative effect." In order to establish an individual's perceptual gap, respondents' scores on the first person effect items (effect on self) were subtracted from their scores on the corresponding third-person effect items.

Support for restrictions on sexually explicit visual content was measured with two items. The Likert-type scale was used to assess the degree to which respondents supported the idea that "visual content should be regulated" on 1) network television and 2) cable television. This study also included measures for three variables potentially linked to support for censorship: 1) attitude toward freedom of expression, 2) previous exposure to pornography and 3) attitude toward sexual openness in Korean society. The attitudes toward freedom of expression were measured with three Likert-scaled questions: "We should have no restrictions on freedom of expression"; "In general, our society should allow individual sexual expression"; and "Freedom of speech can be restricted in certain circumstances." (α =.66) Respondents were asked about their own previous exposure to pornography. Attitude toward sexual openness was measured by asking whether or not respondents agreed with the following statement: "Korean society should move toward more sexual openness as a whole."

IV. Results

1. The perceptual gap between self and others

Hypothesis 1 proposed that people will perceive sexually explicit materials to have a greater negative effect on others than on themselves. The results of paired t-tests indicating partial support for this hypothesis are shown Table 1. For both cases (mild nudity vs. sexual violence), the perceptual difference between self (M =3.32; M = 3.26 respectively) and others of the opposite gender was significant (M = 3.66, p<.01; M = 3.62, p<.01). However, our data for the overall sample did not show a clear third-person perceptual gap between self and others with the same gender. A significant difference was found only within a female sub-sample. For both the mild nudity and sexual violence contexts, females tended to perceive same-gender others (M = 3.45, p<.01; M = 3.37, p<.06) to be more influenced than themselves (M = 3.38; M = 3.32).

Insert Table 1 about here

Hypothesis 2 predicted that the magnitude of third-person perceptions will increase as "others" move from the same gender to the opposite gender. Since we did not find a significant perceptual gap in the case of the same-gender others, we can say that our data generally supported this difference. Nonetheless, we conducted sets of t-test and the results also support that the perceptual gap associated with the opposite gender others was greater than that with the same gender others for both types of sexual content (mild nudity; t = 9.21, p<.01: sexual violence; t = 9.78, p<.01). Even for the female sub-sample, which did produce a significant gap between self and same-gender others, the perceptual gap associated with the opposite gender others was significantly higher than that with the same gender others (mild nudity; t = 9.43, p<.01: sexual violence; t = 9.48, p<.01).

2. Third-person perception and attitude

Hypothesis 3 proposed a positive relationship between the third-person perception and support for restriction of sexually explicit visual materials. Zero-order correlations, and a multiple regression analysis testing this hypothesis, are shown in Tables 2-1 and 2-2. However since we did not find any significant perceptual bias in the case of the same-gender others for our overall sample, we used only the perceptual bias with the opposite gender others in the analysis.

Insert Tables 2-1,2-2 about here

For both the mild nudity and sexually violent cases, the data indicated that the third-person perception with opposite gender others was significantly correlated with the two supportive attitudes (network television vs. cable television) toward censorship at the zero-order level. The regression analysis produced similar strong support for hypothesis 3. After controlling various potential factors influencing one's support for the restriction of sexually explicit materials, the magnitude of perceptual bias was still significantly related to two pro-censorship attitudes. Similar to the findings of Gunther (1995) in the United States, those who supported free speech, were exposed more to pornography, and favored sexual openness in Korean society also opposed censorship. Females were more likely to favor the censorship of sexually explicit visual materials.

Hypothesis 4 predicted that third-person perceptions would be more highly related to pro-censorship attitudes toward network broadcasting than to those toward cable television. As shown in Tables 2-1 and 2-2, the third-person perceptions were significantly related to pro-censorship attitudes toward both media, but our data did not show clear differences between the correlations at the zero-order level. The results of t-tests for the significance of the differences between dependent correlations were found to be non-significant (mild nudity; $t = .75$, ns: sexual violence; $t = .89$, ns). However, regardless of the type of sexual scenes, we found the tendency that the relative influence of the third-person perception became weaker for predicting support of restrictions on these sexual materials in cable television (mild nudity; $\beta = .17$, $p<.01$: sexual violence; $\beta = .13$, $p<.01$) than for predicting support of restrictions in network television (mild nudity; $\beta = .23$, $p<.01$: sexual violence; $\beta = .21$, $p<.01$) after controlling other important variables.

V. Discussion

This study examined the third-person effect hypothesis in a unique Korean cultural setting focusing on sexually explicit visual content. The results of this study generally provide support for both the perceptual and attitudinal parts of the third-person effect hypothesis in the Korean context. On the average, respondents' perceived effect of sexually explicit visual content on opposite-gender others was significantly greater than their perceived effect on themselves. Also, this perceptual bias was significantly related to support for censorship after controlling other important variables.

This study was an attempt to make several contributions to the research on third-person effects besides testing the effect outside the U.S.. First, it distinguished others according to gender difference while considering the social distance notion. Our analysis indicated that gender may be an important factor when examining the third-person perception of mediated sexual content. Males did not show any differences in terms of perceived media effect of sexual content between themselves and others of the same gender. Only females tended to overestimate the negative effect on same-gender others. Hence, this gender criterion in differentiating the distance of "others" applied mainly to the female sub-sample.

Although we could not directly address the question of why only females perceived a greater effect on the same-gender others, several reasons may be suggested. First, Korean males appear to believe that same-gender others are immune to this kind of sexual material. Recent surveys of high school and middle school students in Korea indicated that male students are more exposed to sexual materials (both visual and printed) than are females, and their experience of exposure to this content is generally shared with peer classmates (Educational council of Pusan, 1996). Considering the fact that co-ed schools are rare in Korean society, male students' shared experience may influence them to judge that same-gender others will not be different in reacting to media sexual materials. Second, we conjecture that ego enhancement or self-esteem may vary between males and females. As previous research suggests (e.g., Gunther and Mundy, 1993), the "optimistic bias" has been considered as one potential reason for the third-person perception. Previous findings also suggest that people's motivation to reinforce their self-esteem by regarding themselves as smarter or better than their peers may explain this bias. We believe that comparing the level of self-esteem between males and females may be another important step for interpreting the differences between genders.

The results of the analysis in this study generally contribute additional evidence for the attitudinal part of the third-person effect. While investigating the link between the third-person perception and pro-censorship attitudes, another goal of this study was to consider the characteristics of the medium by which sexual content will be delivered. Previous research on the third-person effect and censorship appeared to focus on one's content specific pro-censorship attitude, such as supporting censorship of pornography (e.g., Gunther, 1995) and violence (Rojas et al., 1995). Our results, however, did not clearly show that the link between the third-person perception and support for censorship may vary according to which medium is consider for regulation. Regarding the regulation of sexually explicit content in cable television, which is more personal choice and target-specific, third-person consideration still played a significant role in predicting a pro-censorship attitude toward cable television. The impact of the third-person perception was not significantly reduced in the case of predicting a pro-censorship attitude toward the more target specific medium.

The present study also provided a chance to compare results with those of Gunther (1995) and McLeod et al.(1996). Although we found a significant link between the third-person perceptual bias and a pro-censorship attitude, the more important factor for predicting a pro-censorship attitude was the individual's perceived effect on self. This finding is quite different from that of McLeod et al.(1996), who found the third-person perception to be a more influential predictor relative to the perception of the media effect on self. Our finding is rather consistent with Gunther's (1995). However, our analysis of sub-sample respondents who had the third-person perception did not produce similar results to Gunther's. For Korean students, the perceived effect on self was one of the most important predictors of support for censorship, even for third-person perceivers, and unlike Gunther's result, the effect of the magnitude of perceptual bias did not increase for this sub-sample (see Appendix 1 and 2). It appears that Confucian social culture, which emphasizes the harmful effect of obscene materials on individuals' moral values in early socialization stages, is related to this tendency.

In addition, the results of this study provide an interesting implication for Korea's broadcasting regulation policy. Previous cases of regulation of sexually explicit materials have been more frequently justified on the grounds of protecting females and children or protecting rather vague "general audience." Our findings, however, indicated that the third-person perceptual gap with others of the opposite gender can be the important factor for understanding one's pro-censorship attitude regardless of gender difference. If potentially negative influence of sexually explicit materials on males was females' important reason for holding pro-censorship attitudes, it is believed that the Korean broadcasting regulators should reflect this tendency of the female audience when they review programs for potentially harmful broadcasting content.

However, caution should be used in interpreting our results. There are several limitations on the generalization of the present findings. Foremost, the non-random nature of our purposive sample should be considered. In fact, it appears that our student respondents tended to sample "others" from their immediate environment when they responded to sets of third-person questions. Hence, our findings regarding gender difference should not be interpreted as conclusive for the general Korean public. Moreover, we did not consider the question order effect in the present study. Although previous studies consistently reported that the third-person effect is not an artifact of question ordering (e.g. Gunther, 1995; Price and Tewksbury, 1994; Tiedge et al., 1991), it is believed that randomizing the order of the comparison of third-person groups will strengthen the findings.

The results of this study suggest that future third-person effect research using sexual content should consider the gender factor in differentiating "others." As Perloff (1993) indicated, it will be necessary to measure directly social distance from same-gender others and from opposite-gender others in future studies. Although our data analysis could not show clearly, it is believed that future research on censorship attitudes in the context of third-person analysis will produce more interesting findings if we take a medium-specific approach rather than a content specific one.

Notes

1) e.g., KBS-2TV, 1994. 10. 23. 21:00-21:55, in KBC 1995

2) e.g., 1992.10.31. in KCC 1994

3) "...Although homosexuality has recently been introduced in Korean Society as an alternative sexual behavior, it is dangerous to broadcast stories of homosexuality and liberal sexual behaviors in primetime television dramas" (Hangyore Newspaper, October 3, 1995).

4) Content characteristic of the Video clip

Video clip 1 : mild nudity
Program Title : The Earth of the Human
Channel : KBS(Korean Broadcasting System)-2TV
Date : October 12 and 13, 1994
Time : 21:50-22:45
Censorship : Warning
Content : Explicit nude scene in a long shot and implicit sexual intercourse in close-up shots with sounds

video clip 2 : sexual violence
Program Title : Mini Series(WangShipRi)
Channel : KBS(Korean Broadcasting System)-2TV
Date : January 1 to 5, 1994
Time : 21:50-22:50
Censorship : Admonition
Content : Explicit rape scene in long shots and close up shots with sounds

*See pictures in Appendix 3.

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A. T-test Result : Perceptual Component of the Third-Person Effect

Table 1. Mean estimates of effect of each content on self and others

Content		Self	Others Same Gender	Diff.	t-value	Others Opp.Gender	Diff.	t-value
Mild-Nudity	All	3.32	3.35	.03	1.48	3.66	.34	9.91**
	Female	3.38	3.45	.07	2.59**	3.87	.49	10.42**
	Male	3.26	3.26	.00	.00	3.45	.19	4.03**
	High S.	3.41	3.45	.04	1.05	3.77	.36	6.46**
	Univ.	3.23	3.26	.03	1.06	3.56	.33	7.74**
Sexual Violence	All	3.26	3.27	.01	.33	3.62	.36	9.35**
	Female	3.32	3.37	.05	1.93#	3.81	.49	9.54**
	Male	3.20	3.16	-.04	-1.16	3.44	.24	4.14**
	High S.	3.30	3.28	-.02	-.41	3.74	.44	6.85**
	Univ.	3.22	3.25	.03	1.13	3.51	.29	6.51**

Note: Items are coded so that 1= large positive effect, 2 = small positive effect, 3= no effect at all, 4=small negative effect, and 5= large negative effect. Significant levels were calculated using paired t-tests.

N : All = 389
Female = 195, Male = 194
High S. = 187, Univ. = 202

**p < .01, *p < .05, #p < .10

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B. Regression Analysis : Attitudinal Component of the Third-Person Effect

Table 2-1: Mild nudity

Factors predicting supportive attitude toward censoring sexual content in two different media

	Censor in TV			Censor in Cable		
	r	B	R2 Change	r	B	R2 Change
Gender(Male)	-.23**	-.07	.05**	-.30**	-.14**	.09**
Age	.03	.10*	.00	.05	.10*	.00
Attitude Toward Free Express	-.38**	-.18*	.12**	-.48**	-.31**	.19**
Attitude Toward Sexual openness	-.26**	-.04	.01*	-.28**	-.00	.00
Exposure to X-Rated Content	-.30**	-.11*	.01**	-.34**	-.10*	.01*
Perceived Effect on Self	.41**	.40**	.10**	.43**	.38**	.10**
Perceptual Bias Opposite Gender	.21**	.23*	.05**	.18**	.17**	.03**
Total R2			.34**			.41**

N=389

Note: Betas are final standardized betas after all variables have been entered and correlations are zero-order correlations.

**p < .01, *p < .05, #p < .10

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Table 2-2: Sexual violence

Factors predicting supportive attitude toward censoring sexual content in two different media

	Censor in TV			Censor in Cable		
	r	B	R2 Change	r	B	R2 Change
Gender(Male)	-.17**	-.05	.03**	-.25**	-.11*	.06**
Age	.01	.12**	.00	-.02	.11*	.00
Attitude Toward Free Express	-.35**	-.19*	.11**	-.45**	-.29**	.17**
Attitude Toward Sexual openness	-.24**	-.04	.01*	-.30**	-.06	.01*
Exposure to X-Rated Content	-.26**	-.09#	.01*	-.32**	-.10*	.01*
Perceived Effect on Self	.37**	.37**	.09**	.35**	.30**	.07**
Perceptual Bias Opposite Gender	.19**	.21**	.04**	.16**	.13**	.01**
Total R2			.29**			.33**

N=389

Note: Betas are final standardized betas after all variables have been entered and correlations are zero-order correlations.

$**p < .01$, $*p < .05$, $\#p < .10$

Appendix-1: Mild nudity (Results of the Third-Person Sub-sample)

Factors predicting supportive attitude toward censoring sexual content in two different media

variable	Censor in TV			Censor in Cable		
	r	B	R2 Change	r	B	R2 Change
Gender(Male)	-.18*	-.12	.03*	-.28**	-.16*	.08**
Age	.18*	.29**	.04**	.12	.17*	.03*
Attitude Toward Free Express	-.14	-.03	.01	-.37**	-.30**	.11**
Attitude Toward Sexual openness	-.09	-.04	.00	-.16#	-.04	.00
Exposure to X-Rated Content	-.20*	-.13	.01	-.33**	-.22**	.04**
Perceived Effect on Self	.29**	.31**	.08**	.30**	.26**	.06**
Perceptual Bias Opposite Gender	.04	.15#	.02#	-.02	.05	.00
Total R2			.20**			.32**

N=149

Note: Betas are final standardized betas after all variables have been entered and correlations are zero-order correlations.

**p < .01, *p < .05, #p < .10

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Appendix-2: Sexual violence (Results of the Third-Person Sub-sample)

Factors predicting supportive attitude toward censoring sexual content in two different media

variable	Censor in TV			Censor in Cable		
	r	B	R2 Change	r	B	R2 Change
Gender(Male)	-.20**	-.17#	.04**	-.28**	-.15#	.08**
Age	.15#	.22**	.04**	-.04	.13#	.01
Attitude Toward Free Express	-.27*	-.19*	.05**	-.43**	-.33**	.14**
Attitude Toward Sexual openness	-.11	.01	.00	-.25**	-.03	.00
Exposure to X-Rated Content	-.13	-.02	.00	-.30**	-.14#	.01#
Perceived Effect on Self	.23**	.22**	.04*	.19*	.12	.01
Perceptual Bias Opposite Gender	.10	.13#	.02#	.09	.07	.00
Total R2			.18**			.27**

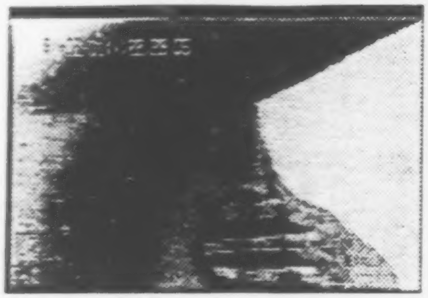
N=155

Note: Betas are final standardized betas after all variables have been entered and correlations are zero-order correlations.

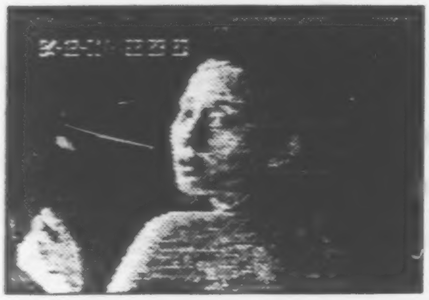
**p < .01, *p < .05, #p < .10

Appendix-3: The major scene of the video clip 1 and video clip 2

video clip 1



겨드랑이 노출



목욕장면

성관계 장면

video clip 2

"준태씨"

" 이럴수가... 다가오면 죽어버릴거에요"

"제발 이러지 말아요... 제발..."

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Arousing Messages:
Reaction Time, Capacity, Encoding.

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Arousing Messages:

Reaction Time, Capacity, Encoding.

This paper investigates the possibility that arousing television messages either require more or are allocated more capacity than calm messages and that this increased capacity during encoding results in better memory for arousing messages than for calm messages. Evidence from two of three experiments shows that secondary task reaction times are slower during viewing of arousing messages compared to calm messages and all three experiments show better memory for arousing messages than for calm messages.

Arousing Messages:
Reaction Time, Capacity, Encoding.

Research on the effects of emotion on memory is plentiful. In media studies, inquiry has focused on emotional political ads (Newhagen & Reeves, 1991; A. Lang, 1991), emotional news stories (Newhagen & Reeves, 1992; Brosius, 1993), emotional advertising (Thorson & Friestad, 1989), and emotional public service announcements (A. Lang & Sumner, 1990). By and large this research shows that emotional messages are remembered better than neutral ones (A. Lang, 1989; A. Lang and Friestad, 1993; Lang and Sumner, 1990; Reeves, A. Lang, Thorson, & Rothschild, 1989; Reeves, Newhagen, Maibach, Basil, & Kurz, 1991).

A subset of this research compares different types of emotional messages to one another (rather than comparing emotional messages to neutral messages). Much of this research demonstrates that people have better memory for negative material than for positive material (Bohannon, 1988; Christianson & Loftus, 1991; Lang, 1991; Newhagen & Reeves, 1992; Reeves et al., 1991; Thorson & Friestad, 1989). Others provide support for the so called "Pollyanna Principle" by showing increased memory for pleasant stimuli (A. Lang, Dhillon, & Dong, 1995; Bradley, Greenwald, & Hamm, 1993; Matlin & Stang, 1978).

Dimensional theories of emotion (P. Lang, 1979) suggest that emotions can be categorized on the basis of two primary dimensions, valence and arousal (Bradley, 1994; Greenwald, Cook, & P. Lang, 1989; P. Lang, 1979; P. Lang, Bradley, & Cuthbert, 1990; P. Lang, Bradley, Cuthbert, in press). Work using this approach suggests that emotional messages are remembered better than neutral messages because they are more arousing (Bradley, 1994). A. Lang, Dhillon, & Dong (1995) suggest that much of the research comparing differentially valenced messages is difficult to interpret since the level of arousal between the positive and negative messages was neither controlled or measured.

Work done by Margaret Bradley and her colleagues (Bradley, 1994) on memory for emotional slides consistently shows that arousing messages are remembered better than calm messages[1] and that improved memory for emotional stimuli does not depend upon the valence of the message, but rather on the arousal associated with that variable. For example, Bradley, Greenwald, Petry, & P. Lang (1992) found that both highly pleasant and unpleasant slides receive high arousingness ratings from college-aged subjects and were recalled better in immediate recall and delayed recall measures, which were taken one year after the slides were presented.

Another study (Bradley, et al., 1992) shows that highly arousing slides were recognized more accurately when subjects were given a forced-choice recognition task. This study also employed secondary task reaction time (STRT) measures. This procedure requires subjects to concentrate on the primary task (i.e., watching a slide or viewing a television message) and then respond to a secondary task (i.e., an audio tone or flash of light) as rapidly as possible by pushing a button connected to a computerized timer. The computer measures the milliseconds from the onset of the secondary task to the subject's response (Basil,1994). Bradley, et al. (1992) found that STRT's obtained during the forced choice recognition tasks were slower for highly arousing new slides (foils) than for the new slides that were calm.

This last finding is somewhat unexpected, and is even counter-intuitive. After all, we might expect that the higher our arousal, the faster our reactions would be. One explanation begins by viewing the human brain as a limited-capacity cognitive processor. Within such a view, a person is said to have a finite cache of cognitive capacity. Any cognitive process is said to depend upon the allocation of that capacity to three simultaneously occurring tasks: encoding, storage, and retrieval. The encoding task is the process of attending to things in the environment and turning them into cognitions. Storage is placing these cognitions into memory for future use. Accessing these cognitions at a later time, then, is the task of retrieval.

With this model in mind, Bradley (1992) suggested that slower reaction times might mean that arousing stimuli are more complex and therefore more difficult to encode than calm stimuli. In other words, an increased cognitive effort may be required to process arousing stimuli which decreases the subjects' ability to respond quickly to a secondary task.

Another possibility is that arousing material actually leads to an increase in the amount of cognitive capacity allocated to the task of encoding. If this is the case, then one might expect the increase in capacity allocated to result in more details of the arousing stimuli being turned into cognition. This may partly explain why arousing slides are remembered better than calm ones; if the arousing information is encoded better (i.e., more details of the slide are turned into cognitions), then more information is available to be stored and eventually retrieved.

Can Bradley's (1992) studies on still slides provide any clues to the role arousal plays in memory for television messages? One place to begin is by determining if the STRT findings can be replicated for arousing and calm television messages. Thus, the first hypothesis of this study is:

H1: Television viewers will have faster secondary task reaction times during calm messages than they will during arousing messages.

This hypothesis flies in the face of much of the literature on secondary task reaction times during television viewing. Several studies (Reeves, Thorson, & Schleuder, 1986; Thorson, Reeves, Schleuder, 1988) have shown that secondary task reaction times are often fastest during highly complex television messages. It has been speculated that this effect might be caused by an increase in arousal felt by subjects in response to complex or fast paced television messages. It is then suggested that this increased arousal speeds reaction times during the complex television messages.

Attempting to explain the seeming paradox, that complex messages somehow require less capacity than simple ones, Lang & Basil (1996) have suggested that secondary task reaction times should not be viewed as a function of either task difficulty or the amount of capacity allocated to a task but rather as an indicator of *capacity available at encoding*. They further suggest that many structural production features of television (like cuts, edits, and video graphics) automatically increase the allocation of capacity to encoding the message (Geiger & Reeves, 1993; Lang et al., 1993). However, the content of the message determines whether or not that capacity is required to encode the message. Often a structural feature, like a cut, causes more capacity to be allocated to encoding when there is little or no new information on the screen for the viewer to process (e.g., the location of the scene has not changed). If the capacity allocated to encoding as a result of orienting to structural features is not required to encode the content of the message, then there will be additional capacity available at encoding. This would result in faster reaction times to highly produced messages where the production techniques add little in the way of new information.

These suggestions are particularly relevant to understanding the significance of findings (Bradley, 1992) that secondary task reaction times are slower during viewing of arousing stimuli than during viewing of calm stimuli. The Bradley et al. Experiments derive, one must recall, from a paradigm where the stimuli are static. Subjects in these experiments (Bradley, 1992) are viewing slides, so the capacity required by the structure of the medium is the same for all slides and only the capacity required by the content varies across slides. This suggests that the number of structural features in a television message might need to be controlled to investigate this hypothesis.

Capacity, Encoding, and Memory

If more capacity is allocated to encoding arousing material than to encoding calm material this would begin to explicate the mechanisms which result in arousing material being remembered better than calm material as was discussed above. If this is the case, memory should be better for messages with slower reaction times - predicted to be the arousing messages, than it is for messages with faster reaction times - predicted to be the calm messages. Hence, Hypothesis 2:

H2: Arousing messages will be remembered better than calm messages.

This paper tests these hypotheses with a secondary analysis of data collected previously in three different experiments where arousingness of television content was one of the independent variables and secondary task reaction times and memory were dependent variables.

Experiment I

Stimulus Selection

During this experiment participants viewed 12 two-minute emotional television messages which had been chosen in a pretest on the basis of valence and arousal (Lang, Dhillon, & Dong, 1995). All twelve messages had been taped off-air; three were situation comedies, three were prime-time dramas, two were prime-time docudramas, three were news shows, and one was a soap opera. Pretest subjects had rated each of the 12 messages using SAM the Self-Assessment Mannequin (P. Lang & Greenwald, 1985).The SAM arousal scale is a pictorial measurement device which translates into a 9 point scale anchored by the adjectives calm, sleepy, and restful on one end and excited, aroused, and energized on the other. For the analysis reported in this paper, the 12 messages were ordered by their pretest scores on arousal. Messages which were within one point of the midpoint were dropped to ensure that the arousing messages were arousing and the calm messages were calm. As a result, only 8 of the original 12 messages were included in the analysis. The four most arousing messages had an average SAM arousal score of 3.03 (where 1= highly aroused and 9=calm) while the four calmest messages had an average SAM arousal score of 6.38.

Dependent Variables - Secondary Task Reaction Time

Secondary task reaction times were measured by having subjects press a button held in the dominant hand as fast as they could every time they heard a tone embedded in the audio track of the television message. Five reaction time tones were placed in each message. The first reaction time occurred at the start of each message. The next three reaction time tones were placed randomly such that one occurred within each 40 second period of the message. The final reaction time tone was placed in the last ten seconds of the message.

Apparatus

The experiment was controlled by a Zenith 286 computer equipped with a Labmaster AD/DA board. Digital signals placed on audio track 2 of the videotapes both emitted the reaction time signal and signaled the start of the reaction time period. Each reaction time button sent a digital signal to the computer. The computer measured the milliseconds from tone onset to button push. The accuracy is plus or minus one millisecond.

Memory

Memory was measured by giving subjects a packet of 12 randomly arranged pages. On the top of each page was a cue which identified one of the 12 messages. Subjects were asked to write everything they could remember about the message on that page. Six measures were coded from these protocols by two coders working independently. The six measures were:

1)Number of words.

2)Number of sentences.

3)Audio sentences: These were sentences which explained what happened in the audio track of the message.

4)Video sentences: These described action that occurred in the video channel.

5)Global ideas: These sentences described long term conditions of the message (i.e., "It was dark", or "It was on an island".

6)Local ideas: These sentences described specific short term actions and words (i.e., "He said, 'get some water'", or "She answered the phone".

Intercoder reliabilities ranged from .86-.99. These six measures were then combined into a global memory scale (alpha=.991). This global memory scale is used in the analysis here.

Subjects

Subjects were 48 undergraduate advertising students, 31 males and 17 females. The subjects received extra credit for their participation.

Procedure

Two experimenters (one male and one female) tested subjects over a four-day span. Three video tapes were created, with the messages ordered differently on each. Subjects were randomly assigned to one of three stimulus tape orders at the start of the viewing session. Subjects were given a reaction time button and instructed in its use. Subjects were told to pay close attention to the television messages as they would be tested later to ensure that watching television was the primary task. Subjects were then shown a three-minute video containing 8 practice reaction time tones. Following this practice session they had a chance to ask questions. Then they viewed the stimulus tape and filled out the memory questionnaires.

Analysis

The design for this analysis is a mixed 3 (Order of Presentation) X 2 (Content Arousal) X 4 (Message) repeated measures ANOVA. The only between subjects factor is Order of Presentation, which corresponds to the three different orders of the stimulus tape. Content Arousal is a within subjects variable with two levels, arousing and calm. Message is a within subjects factor corresponding to the four messages within each level of arousal.

Results-Experiment I

Hypothesis 1

This hypothesis predicted that when watching arousing messages viewers would have slower reaction times than when watching calm messages. The main effect for Arousal on the reaction time data was not significant ($F(1,44)=1.65$, $p<.20$), though the means were in the predicted direction with the mean RT for arousing message ($M=709.49$) being slightly slower than the mean RT for calm messages ($M=706.41$).

Hypothesis 2

This hypothesis predicted that arousing messages would be remembered better than calm messages. Again this hypothesis is tested by the significant main effect for Arousal (F(1,38) = 153.88, p<.000, epsilon-squared=.7967). The mean total memory score for arousing messages was just over twice as large (M=65.79) as the mean for calm messages (M=32.23).

Experiment II

Stimulus Selection

This experiment was originally designed as a replication and extension of Experiment 1 (Lang & Bolls, 1995). Again subjects viewed 12 emotional messages (presented in two different orders of presentation) chosen to vary on arousal and valence. Eleven of the 12 messages were the same messages used in Experiment 1. All of the messages were chosen for inclusion in the stimulus tape on the basis of pre-test SAM scores. The subjects in this experiment, however, also rated how they felt while watching each of the messages using SAM. For this analysis, the messages were ranked, not on the pre-test SAM scores, but on the subjects' own ratings of how they felt while viewing each message. The four most arousing messages and the four calmest messages were chosen. This resulted in six of the eight messages being the same messages as those in Experiment 1, while two were different. Analysis of subjects' SAM arousal scores shows that the four arousing messages (M=4.77) were significantly more arousing than the four calm messages (M=7.19) (F(1,65)=167.80, p<.000, epsilon-squared=.7165).

Dependent Variables - STRT and Recognition

Secondary reaction time was measured using the same procedures, equipment, and apparatus as in Experiment I. Again, five reaction time signals were inserted in each message. Memory was measured using recognition (rather than cued recall techniques). Subjects were given a test consisting of six four-alternative multiple choice questions for each message. These questions were constructed to ask for specific information that was relevant to the story. Questions did not ask about the gist of story. Questions were designed to be difficult but not to test memory for irrelevant information.

Subjects

Sixty seven undergraduate communication students participated in the experiment. All 64 students completed the recognition measures. Thirty two of the students were also in the reaction time condition. The other 32 students were in a physiology condition not reported here.

Procedures

Procedures were the same as for Experiment I except that the stimulus was paused after each message to allow the subjects to rate how they felt during the message using the Self-Assessment Mannequin.

Analysis

The design was a mixed 2 (Order of Presentation) X 2 (Arousal) X 4 (Message) repeated measures ANOVA. Again Order of Presentation is a between subjects variable with two levels corresponding to the two orders of presentation of the messages. Arousal is a within subjects variable with two levels corresponding to how aroused the subjects reported feeling while viewing the messages. Message is also a within subjects variable representing the four messages in each arousal condition.

Results-Experiment II

Hypothesis 1

This hypothesis predicted that reaction times would be slower for arousing messages than for calm messages. The main effect for Arousal on the reaction time data was significant (F(1,29)=19.50, p<.000, epsilon-squared=.3814). Reaction times were significantly slower during arousing messages (M=771.87) than during calm messages (M=733.66).

Hypothesis 2

This hypothesis predicted that arousing messages would be remembered better than calm messages. Again the main effect for Arousal was significant (F(1,64)=46.45, p<.000, epsilon-squared = .4126). As predicted memory was better for arousing messages (M=.76) than for calm messages (M=.66).

Experiment III

Stimulus Selection

Subjects in this experiment viewed thirty 30-second television messages (Bolls, Potter, Lang, 1996; Lang, Bolls, & Kawahara, 1996; Kawahara, Bolls, Hansell, Potter, Dent & Lang,1996). The thirty messages were chosen from a pool of over 300 messages that had been taped off-air, and were selected on the basis of arousal ratings and production pacing. Arousal was determined for each message by three coders working independently using a 9 point scale where 1=very calm and 9=very aroused. Messages chosen for this study had to be rated 1 or 2 by all three coders to be included as calm messages or 8 or 9 by all three coders to be included as arousing messages. The resulting stimuli represented many common genres, including children's cartoons, talk shows, nature programs, prime-time dramas, soap operas, and even infomercials.

Subjects in the experiment rated their emotional responses to the messages using the SAM arousal scale. Subjects rated themselves as feeling significantly more aroused during the arousing messages (M=5.6) than during the calm messages (M=7.22) (F(1,49)=196.66, p<.000, epsilon-squared = .7965). Four presentation orders of the messages were prepared.

Dependent Variables - STRT and Cued Recall

Again secondary task reaction times were measured in the same way that they were in Experiments I and II. Two secondary task reaction time signals were embedded in each message, one placed randomly in each 15-second period of the 30-second messages, with the restriction that no signal could be within 2 seconds of a cut or edit. Memory was measured using the same protocol as in Experiment I. Subjects were given a packet of thirty sheets arranged in one of four random orders. Each sheet had a cue to one message. Subjects were asked to write down everything they could remember about the message. Initially, coding of this data consisted of counting the number of words written. Then, subjects' responses were coded into the following three categories:

1)Narrative Description: These statements described things that happened in the messages, what the messages were about, or objects, actions, or persons the subject had seen on screen.

2)Auditory Description: These statements described things that the subjects heard in the message including music, sound effects, descriptions of sounds or voices, or attempts at direct quotes. (Accuracy was not a factor in this category).

3)Implicit Memory: These statements described information not provided in the message such as the name of the show the message was excerpted from, the names of actors in the messages, identifications of genres, titles of songs, etc. (Again, accuracy was not a factor).

Coding into these categories was done by two researchers on the project working independently. Responses from 30 of the 51 subjects were coded twice, with intercoder reliability obtaining alphas above .90. The remaining responses (N=21) were coded once.

Subjects

Subjects were 51 undergraduate communication majors participating for extra credit.

Procedure

The procedures were similar to those used in Experiment I and II. Subjects were instructed in the use of the reaction time button and shown a practice video. During the viewing of the stimulus tape, the tape was paused after each message. Subjects had 30 seconds between messages to rate how they felt while viewing using the Self-Assessment Mannequin. Subjects were given a warning that the message would be starting 5 seconds prior to message onset. Following message viewing, subjects completed a questionnaire for another experiment and then were given the cued recall test.

Analysis

The design of this experiment is a mixed 3 (Order of Presentation) X 2 (Content Arousal) X 15 (messages) repeated measures ANOVA. Order of Presentation is a between subjects variable. Content arousal is a within subjects variable with two levels Arousing and Calm. Messages has 15 levels representing the 15 messages in each level of content arousal.

Results--Experiment III

Hypothesis 1

This hypothesis predicted a main effect for Arousal on the reaction time data. This effect was significant ($F(1,48)=15.36$, $p<.000$, epsilon-squared = .2266). Reaction times were slower during arousing messages ($M=845.71$) than they were during calm messages ($M=799.37$).

Hypothesis 2

This hypothesis predicted that memory would be better for arousing messages than for calm messages. The main effect for Arousal on the memory data was significant for the number of words ($F(1,48)=15.14$, $p<.000$). Results also show a significant main effect for Arousal on Narrative Description ($F(1,48)=10.71$, $p<.002$, epsilon squared=.1656), Auditory Description ($F(1.48)=22.51$, $p<.000$, epsilon squared=.3041), and Implicit Memory ($F(1,48)=20.89$, $p<.000$, epsilon squared =.2881). As predicted, the means were greater for memories of arousing messages, than for those of calm messages. The means for each memory category are reported in Table 1.

Discussion

Results from these studies suggest that secondary task reaction times may in fact be slower while people are watching arousing television messages than when they are watching calm television messages. Further, this result appears to be greatest when the determination of what messages are calm and what are arousing are based on subjects' own ratings of how aroused they felt. In Experiment I, the only case where the effect of arousal was not significant (though the means were in the correct direction), the determination of which messages were arousing and which messages were not was based on pre-test subjects' judgments of the messages.

In addition to resulting in slower secondary task reaction times, arousing messages were also remembered much better than calm messages in all three conditions. Both recognition and cued recall measures were used in these three studies and both types of memory measures supported this hypothesis.

Theoretically, these results support either of two possibilities: (1) that arousing messages require more capacity to encode, or (2) that arousing messages are allocated more capacity to encode. This increase in the capacity given over to the task of encoding the message seems to be at least part of the reason why arousing television messages are remembered better than calm ones. This raises an interesting theoretical question. Is this increase in capacity automatic -- that is, outside of the control of the viewer, or is it controlled -- that is, under the control of the viewer? Many people would argue that the subject matter of the arousing messages (sex, violence, blood, and gore) is more interesting than the subject matter of the calm messages (science, nature, conversation) and thus that people voluntarily allocate more capacity to watching the arousing messages because of the higher interest level. If this is the case, than the slower secondary task reaction times might be caused by a voluntary allocation of capacity to the more interesting arousing messages.

On the other hand, it is also possible that the arousing contents result in an imperative call for capacity and that we automatically allocate additional capacity to arousing messages. There is a logical argument here, too, that suggests that arousing messages tend to be related to biologically primal topics like danger, food, procreation, and survival, and that there would be an advantage to the species if these things called attention to themselves. It is also possible that both an automatic and a controlled allocation of capacity combine to result in increased encoding and therefore memory for arousing messages.

It seems likely, however, that at least some of the increased encoding capacity is due to automatic allocation. Two points support this contention. First, in the design of these experiments a concerted effort was made to control viewers' voluntary attention allocation. They were told to pay close attention to the television messages as they would be tested. The practice test they were given after viewing the reaction time practice tape was extremely difficult (more difficult than the tests given for the stimulus messages), in order to stress the need to watch closely. Second, in the work on slides by P. Lang and Bradley (1992) reported earlier, reaction times during viewing of arousing and calm slides was measured both to new slides (slides the subjects had not viewed before) and to old slides (slides the subjects had viewed before). Reaction times were slower for arousing slides only when subjects were viewing the slides for the first time. When viewing slides for the second time (which means they have already been encoded), reaction times to arousing slides were faster! If the change in reaction time were due to the interestingness of the slides - subjects should still show slower reaction times on the second viewing of the slides. But they don't. Future research should continue to investigate this question of the automaticity of the allocation of capacity to encoding. It would also be interesting to investigate the effects of valence (controlling for arousal) in television messages on reaction times and memory both in comparison to one another and in comparison to neutral messages. In addition, the question of how production pacing interacts with arousal to alter reaction times may further illuminate the theoretical question of exactly what is being measured by secondary task reaction times.

In a more applied sense, these results suggest that if broadcasters want their messages to be remembered, the important consideration is not whether it is a positive or negative message, but rather the level of arousal they are able to generate in viewers who watch it. In other words, televised discussions of violence may not be remembered as well as dramatic re-enactments, or video of actual violent events. Similarly, positive news stories that do not significantly arouse viewers may not be recalled. This may explain a public perception of television news as focusing entirely on the negative; the positive, human interest stories that *are* produced do not elicit enough arousal in viewers to be remembered. Interestingly, past studies on arousal and valence have employed two genres as exemplars of the Positive/Arousal dimension: sports and erotica. Slides of sporting events (i.e., sailing and downhill skiing) have elicited high arousal ratings mainly from males, with females being not nearly as aroused. Erotica, on the other hand, is highly arousing for both genders. Now, while sports will continue to be a part of each evening newscast, it is unlikely that television news will begin approaching erotica in presentation style in hopes of increasing memory of positive emotions. Still, future research should investigate the possibilities of presenting positive stories in ways that stir arousal in viewers.

Table 1: Cued recall means for arousing and calm messages

	Word Count	Narrative Descriptions	Auditory Descriptions	Implicit Descriptions
Calm Messages	10.95	3.69	.09	.20
Arousing Messages	12.62	4.24	.18	.37

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[1] In this work, hundreds of slides have been rated on the arousal, valence, and dominance dimensions and then placed in three-dimensional affective space. Based on this work, a standardized set of emotional slides has been created called the International Affective Picture Show (IAPS, P. Lang, Ohman, & Vaid, 1988). The IAPS consists of slides ranging from neutral household items (hair dryers, umbrellas), to highly arousing pleasant objects (erotica, sailing, roller coasters), and highly arousing negative scenes (airplane crash, mutilation, etc.). These pictures have been used as stimuli for experiments examining the nature of emotion on memory and psychophysiological responses. As mentioned above, arousal and valence provide the primary affective dimensions, with little variance being accounted for by dominance measures.

The Media and Voter Turnout
An Investigation of People's Willingness to Vote in the 1992 Presidential Election

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The Media and Voter Turnout :
An Investigation of People's Willingness to Vote in the 1992 Presidential Election

Abstract

This study investigated how media-related variables were associated with people's stated willingness to vote, synthetically considering the effects of various variables which have been investigated in voter turnout literature based on major electoral theories: sociological, social-psychological, and rational choice approaches. Furthermore, to test the proposition that people's likelihood of turning out at the polls is not static but is influenced by dynamic factors during the campaign, relevant analyses were attempted. In the cross-sectional analysis, indirect effects of media use and negative influence of talk shows were observed; in the panel, the direct impact of media use was identified for those with low political interest. The importance of the process-oriented approach regarding electoral behaviors and campaign media use was corroborated.

The Media and Voter Turnout :
An Investigation of People's Willingness to Vote in the 1992 Presidential Election

Various changes in the political environment have made people's political behaviors less predictable, compelling researchers to re-conceptualize the role of the media in the political process (McLeod, Kosicki, & McLeod, 1994; O'Keefe & Atwood, 1981). Voter turnout, which has continuously declined since 1960, and was barely over 50% in recent presidential elections, has become a "puzzle" for researchers (Brody, 1978). Consequently, voter turnout, as an important phenomenon of political volatility, becomes an interesting area of research, particularly in terms of the role of the media (McLeod et al., 1994)

In the political science literature, however, the media's impact on voter turnout has rarely been addressed (e.g., see Wolfinger and Rosenstone, 1980). Three major paradigms of voting behavior -- the sociological (Lazarsfeld, Berelson, and Gaudet, 1964), social-psychological (Campbell, Converse, Miller and Stokes, 1960), and rational choice (Downs, 1957) perspectives-- and studies based on these paradigms have paid little attention to communication variables in their theoretical and empirical analyses (for a summary and comparison of these three paradigms, see Dennis, 1991a). Some researchers have shown an interest in media factors, but their attempts have often been limited to including a single indicator such as newspaper reading as an element comprising people's campaign interest or involvement, rather than treating it as a distinct theoretical concept (Nichols and Beck, 1995; Teixeira, 1987).

The neglect of media factors in voter turnout models is ironic, given that a great deal of attention has been given to campaign media in the related literature, from demonstrating the active role of the media in electoral process (Ranney, 1983) to criticizing the media as trivializing/eroding the electoral process by focusing on non-substantive issues (Patterson, 1993).

Although these studies did not specifically address the media effects on voter turnout, one of their basic underlying themes is that the media do matter in the election process.

In mass communication research, voter turnout has also been relatively neglected; studies have been sporadic or are outdated (Bybee, McLeod, Luetscher, & Garramone, 1981; Glaser, 1965; Simon & Stern, 1955). Recently, analyzing the 1992 presidential election, Weaver and Drew (1995) found an indirect effect of people's media use on their willingness to vote: media use boosted campaign interest which, in their model, most significantly affected respondents' stated likelihood of voting. However, this study was inconclusive, because the model of voter turnout and choice of variables were not guided by theoretical concerns developed in voter turnout literature. Thus, the findings concerning people's intention to vote and media use need to be re-tested with a theoretical model composed of various long- and short-term turnout-related variables.

Ansolabehere and Iyengar (1994) also attempted to assess the influence of media on people's turnout behavior in an experimental setting. Using the rational choice model, they tested whether the closeness of the election, reflected in poll-related news reports, affected respondents' likelihood to vote. They failed to find any significant effects on individuals' inclination to vote.

What is interesting about their study, though, is that they treated people's perceptions of opinion trends or climate of opinion (which was reflected in the media polls) as a main mechanism helping them calculate the extent of election closeness. The basis on which people's calculation of election closeness is processed has not been carefully conceptualized in traditional rational choice research (e.g., Ricker and Ordeshook, 1968). Generally, in these studies, respondents were simply asked to estimate whether a given election would be close or not. However, Ansolabehere et al. (1994) designed an experiment in such a way that people's perception of the closeness of a race resulted from assessing the climate of opinion regarding whether the campaign was/would be competitive.

To some extent, voter turnout can be understood as a product of the campaign process. Some individuals' likelihood of voting may be determined by such long-term political orientations as strength of partisanship and sense of civic duty to vote, well before a campaign begins. However, for others, various factors related to a campaign may increase or decrease their inclination to vote. A similar view was proposed by Blumler and McLeod (1974), who emphasized that voter turnout research should be designed to reflect the dynamics of the phenomenon. In a British election study, they differentiated respondents according to the (in)consistency between their expressed pre-campaign intention to vote and actual turnout. However, they failed to address the dynamic aspects of various short-term forces, such as individuals' campaign interest and their media use. People's media use patterns, for example, may not be consistent but may vary during the course of a campaign; such variation may be accompanied by increased or decreased willingness to turn out at the polls. This approach may enable researchers to ascertain the effects of short-term forces more appropriately.

To summarize, this study investigated how media-related variables are associated with people's stated willingness to vote, synthetically considering the effects of various other variables which have been investigated in voter turnout literature based on three major electoral theories: the sociological, social-psychological, and rational choice approaches. Furthermore, to test the proposition that people's likelihood of turning out at the polls is not static but is influenced by dynamic factors during the campaign, relevant analyses were performed. This study included two separate analyses, using cross-sectional and panel data. The former focused on a general understanding of how people's intention to vote is predicted by various variables;

the latter investigated how people's willingness to vote is influenced by variations in short-term forces during the campaign.

Variables

Five categories of variables were investigated in the study: demographics (age, sex, education and income), social-psychological, campaign involvement, rational choice, and those relevant to the domain of the media. In the panel data analysis, all of these categories except for the rational choice variables were studied. The demographic category partly represents the sociological tradition in voting literature (Lazarsfeld et al., 1954; Leighley & Nagler, 1992), which emphasizes the role of the social locations people occupy.

The social-psychological approach of the Michigan School (Campbell et al., 1960) focuses on people's long-term political orientations. In addition to such usual measures as political efficacy and the intensity of partisanship, people's general political interest was included in this category, representing their long-term psychological involvement in politics.

Campaign involvement is a category specifically related to a particular campaign, and also evolved from the Michigan School. It included people's campaign interest and candidate affect. People's campaign interest has frequently been analyzed in voter turnout research; however, people's affective feeling toward candidates has rarely been addressed in this context, despite its assumed importance. According to the social-cognitive model of Rahn, Aldrich, Borgida and Sullivan (1990), people's feeling about candidates, which is based on their assessment of the candidates' leadership abilities and personal qualities, forms a basis for voters' decisions. Their assertions regarding the importance of what they called "an affective summary of candidates" also correspond to the idea of candidate-centered politics in the context of electoral dealignment

(Wattenberg, 1990). If people's summary feelings toward candidates constitute one of important factors influencing their voting decisions, it should be more than plausible to expect that their affective evaluations of candidates, or candidate affect, will exert an influence on voter turnout.

The rational choice model assumes that people's individual economic calculations in an election (costs versus benefits from voting) help them decide whether to vote. Two aspects of the rational choice model were considered in this study: high cost and the perceived closeness of an election (for a thorough and critical discussion of empirical applications of this model, see Dennis, 1991b). High cost as an obstacle to turnout at the polls is represented by the difficulty expressed in voter decision-making. This refers to the extent to which people experience difficulty in deciding on their favorite candidate. The closeness of the election is conceptualized as one's vote value, which is defined as the perceived importance of one's vote in influencing the election outcome. Following Ansolabehere et al.(1994), this concept was operationalized as reflecting one's perception of the opinion climate, in terms of the distribution of people's support for candidates and the trend of support, as will be discussed later.

Finally, people's media use was considered in the broad voter turnout model discussed above. In addition to people's use of political/campaign stories in the two major media (TV and newspapers), their use of important campaign events, such as candidate debates presented in the media, and their use of TV talk shows with candidate appearances were also analyzed.

Method

Samples

Two kinds of samples, cross-sectional and panel, were analyzed in this study. Both samples were gathered from telephone interviews conducted by the Mass Communications Research

Center at the University of Wisconsin-Madison. The interviews for the cross-sectional data were conducted in late-October, 1992, with a random sample of 421 adult residents of Dane County, Wisconsin. The panel data were gathered in August and October in 1992 from the same population; the size of the sample was 131.

Operationalization

Cross-sectional analysis. In the cross-sectional analysis, the dependent variable, people's willingness to vote, was measured by asking respondents how likely it was that they would vote on election day, using a 100 percentile scale. Including demographic variables (age, sex, education and income), five categories of independent variables were considered: social-psychological, campaign involvement, rational choice, general campaign media use, and major campaign event media use.

The social-psychological block includes such variables as partisan support (whether a respondent is a party-supporter or not), political efficacy, and general political interest. Political efficacy is composed of two factors: personal efficacy and general efficacy. Five variables were factor-analyzed using the principal component extraction method and oblique rotation. The first factor, personal efficacy, refers to one's perception about her/his own political effectiveness, based on responses to the following questions: "Public officials don't care about what people like me think," and "Sometimes politics and government are so complicated that people like me can't really understand what's going on." The second factor, general efficacy, concerns the extent to which a respondent evaluated the political importance of the general public, including her/himself. Responses to three questions indexed this factor: "Every vote counts in an election, including yours and mine," "Most of the time we can trust our government to do what's right," and "In America, everyone who wants to has a voice in what the government does."

Respondents were asked for their degree of agreement, on a ten point scale, with the statements. Their general political interest was measured by asking how interested they were in politics in general, apart from the campaign, on a 10-point scale.

Campaign involvement includes two variables: candidate affect and campaign interest. Candidate affect refers to how favorably one feels toward his/her supported candidate on a 100 degree thermometer measure. Campaign interest indicates to what extent respondents are interested in following the current presidential campaign; it was measured on a 10-point scale.

Two variables representing the rational choice model were considered: difficulty in decision-making as an indicator of cost aspect, and one's vote value in terms of affecting the election outcome. Respondents who stated that their likelihood of voting was greater than 0% were asked about their degree of difficulty in deciding for whom to vote for president. The index for vote value was constructed by combining two questions: 1) one about the estimated current distribution of votes for candidates, and 2) one about the trend of support, i.e., whether each candidate was gaining or losing public support, or support was staying the same. Vote value was coded 1 if it was least likely to affect the outcome of the election, if the respondent considered his/her supporting candidate as the front-runner and as gaining support, or if the respondent believed his/her candidate was not the front-runner and was losing support. Vote value was coded 2, if the respondent's candidate was perceived as being behind another candidate and as receiving invariable public support. If the respondent's supporting candidate was considered as the front-runner but as maintaining the same level of public support, vote value for the campaign was coded 3. Finally, vote value was coded 4 if it was most likely to affect the election outcome, if the respondent's candidate was perceived as leading the race but as losing public support, or if the candidate was regarded as an underdog but as gaining public support.

People's general campaign media use consisted of 5 variables: newspaper political news exposure, newspaper political news attention, TV political news exposure, TV political news attention, and exposure to TV talk shows with candidate appearances. Newspaper political news exposure was constructed by combining respondents' exposure to international, national and local news (alpha=.82); and newspaper political news attention was a composite index of respondents' attention to these three types of news contents (alpha=.82). People's exposure to morning, local and network news constituted a composite index of TV political news exposure (alpha=.63), and TV political news attention was composed of respondents' attention to stories about international affairs, national government and local government (alpha=.76). All of the original indicators were measured on a 10-point scale from "rarely read (watch)" to "read (watch) all the time" for exposure questions, and from "little attention" to "very close attention" for attention questions. If respondents answered that they did not read or watch, their responses were coded as zero for each variable.

Finally, major campaign event media use measured people's media use of televised candidate debates. Respondents' exposure to these debates was indexed by constructing a composite measure of their exposure to three presidential and one vice presidential candidate debates, which were addressed by separate questions (alpha=.76). Respondents' attention to televised debates was measured by a question asking about their level of attention to televised debates on a 10-point scale.

Panel anaysis.[1] The use of variables in the panel data analysis was rather limited. Because panel analysis is interested in how changes in one's likelihood of voting are influenced by dynamic factors over the course of the campaign, variables in campaign involvement and media categories were constructed using the data for both waves 1 and 2. Stable variables, such as demographic and social-psychological variables, were analyzed using either wave 1 or 2 data, depending on when the relevant questions were asked. Political efficacy and the rational choice model were not investigated because of the unavailability of relevant data.

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[1] A reviewer pointed out that the construction of the change score (i.e., subtraction of scores at wave 1 from those from wave 2; change score method) was unreliable because of excessive error variance and recommended an alternative analysis using the dependent variable's score at wave 1 as the first control block in regressing wave 2's dependent variable on independent variables at wave 2 (regressor variable

The dependent variable, changes in one's likelihood of voting, was constructed by subtracting one's vote intention at wave 1 from that at wave 2. Campaign involvement included two variables: change in campaign interest and change in candidate affect. Both variables represent the difference between people's responses at waves 1 and 2, with wave 1 information used as a baseline. Four variables belong to general campaign media use. These are the degree to which one was exposed to presidential campaign stories, and the extent to which one paid attention to campaign stories, all of which were asked separately for newspapers and TV. These variables were computed according to the difference between attention or exposure at wave 1 and at wave 2.

Results

The order of entering each category in the regression analyses was decided by the relative distance from the point of decision-making as to whether to turn out at the polls. Thus, demographic variables were entered first, followed by the social-psychological block, which represents long-term political orientations. Campaign-related variables (i.e., campaign involvement) were entered as the third block and the rational choice category was entered next.

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method). Results from the regressor variable method are presented in appendices. See Allison (1990, 1994), for arguments and research supportive of the change score method.

Media variables were entered last, with general campaign media use first and major campaign event media use next.

All the regression coefficients reported were standardized so that each variable's relative contribution could be compared with those of the others. In this paper, simple bivariate correlations and regression analyses of each category after controlling for demographic variables are presented first, followed by regression analyses with all the blocks of variables.

Cross-Sectional Data Analysis

All indicators of the social-psychological approach and campaign involvement had significant associations with people's intention to vote (Table 1). Their interest in the campaign (r=.33) showed the strongest relationship, followed by general interest in politics (r=.22). Partisan support, political efficacy, and candidate affect also demonstrated significant correlations. The incremental R2 produced by the social-psychological block controlling for the demographic block was .054, with partisan support and political interest having significant betas. Campaign involvement explained 9.3% of total variance in people's willingness to vote, which was the greatest magnitude, with only campaign interest being independently significant.

Among rational choice indicators, difficulty in decision-making showed a significant initial correlation (.16) and beta (.18) coefficients. The incremental R2 of the category was .035, which was due primarily to the contribution of the difficulty indicator, given the insignificant association of one's vote value with the dependent variable. However, the direction of the difficulty indicator's coefficient was the opposite of what we had expected. The greater one's difficulty in deciding whom to vote for, the more likely one was to state s/he would vote. This result directed the investigator to reevaluate the conceptual meaning of the indicator; it was concluded that what the indicator had measured was not the intended high cost aspect , but the degree of investment one perceived s/he had made in the decision-making process during the campaign. That is, because the question was asked of respondents having more than a zero percent intention to vote, people expressing difficulty might be those who had already paid a high price, not those who calculated the expected cost for their future behavior. Because of this conceptual difference between the current difficulty measure and the indicators of the original rational choice model, each indicator (i.e., vote value and difficulty variables) was entered separately in subsequent regression analyses.

Some indicators in both media use categories showed significant associations at the zero-order level; but none of the betas and incremental R2 turned out to be significant. Among the demographic variables, education (r=.18) remained significant when considered along with other demographic variables (beta=.16). The demographic category's R2 (.046) was significant.

A hierarchical multiple regression result with 7 blocks entered is shown in Table 2. Overall, the whole model explained 22.0% of the total variance in respondents' intention to vote. The incremental R2 of the social-psychological approach (5.4%), campaign involvement (4.9%), and the difficulty block (4.0%) were significant even after the preceding blocks' contributions were considered. However, the R2 changes produced by the other blocks were not significant.

Looking at the final betas, we see that respondents' campaign interest had the strongest association with their willingness to vote (.30). One's perceived difficulty in decision-making, the campaign investment one made in deciding who was his/her favorite candidate, appeared to be the next best indicator(.23). Education (.13) and one's identification with a party (.11) showed positive, significant relationships with the dependent variable.

People's talk show exposure, whose initial bivariate correlation (-.01) was not significant, appeared as a significant indicator after all the variables in the model were entered (final beta=-.11). A rather weak indicator (t=-2.150), it suggested that exposure to candidate appearances on TV talk shows had a negative influence on people's willingness to vote.

Overall, those who had high interest in following the campaign process and who had experienced difficulty in choosing their favorite candidates tended to have a greater intention to vote. Also, those with a higher education level, stronger identification with either party and less exposure to campaign-related TV talk shows were more likely to say they would turn out at the polls.

In Tables 3 and 4, I have extended the investigation to see how people's campaign interest, the strongest predictor of people's intention to vote, was associated with other variables. In Table 3, people's media use of a major campaign event, exposure and attention to televised presidential candidates' debates (r=.45 and r=.61, respectively), show the strongest associations with campaign interest. This category alone, after controlling for the demographic variables, explained 35.5% of the dependent variable's variance, with debate attention having a particularly strong beta (.57). Variables included under the social-psychological approach also showed a strong relationship. All the variables, partisan support (r=.21, beta=.16), general political interest (r=.51, beta=.50), personal efficacy (r=.18, beta=.11), and general efficacy (r=.17, beta=.09), were significantly associated with people's campaign interest; the incremental R2 of this category was .306. People's ordinal campaign media use explained 18.1% of the total variance of the dependent variable. All five variables had significant relationships (r ranges from .13 to .35), with newspaper exposure (beta=.27), TV attention (beta=.26), and talk show exposure (beta=.18) remaining significant after demographic controls. Candidate affect, which was introduced to represent the phenomenon of candidate-centered election, was also significantly related to people's campaign interest (r=.32, beta=.28, the incremental R2= 7.8%). However, the difficulty of decision making, the vote value and the demographic variables' relationships with people's campaign interest were not significant.

Thus, we see that 52.2% of the total variance in campaign interest was explained by the 7 blocks (Table 4). The incremental R2 of the social-psychological dimension (.306), candidate affect (.023), general campaign media use (.045), and debate media use (.130) were significant. Although the social-psychological block's incremental R2 looks impressive, even more significant was the debate media use block's independent contribution, obtained after entering all the other 6 blocks. When the social-psychological block was entered as the last block, the incremental R2 produced by the block was only .076 (this finding is not shown in tables).The two media blocks together independently explained almost 18% of the total variance in people's campaign interest, after all the other blocks' contributions were considered.

The final betas indicate similar patterns to those discussed above. Debate attention (.43) was most strongly related to people's campaign interest. People's political interest (.29), both political efficacy factors (.10 and .07), and candidate affect (.14) also showed significant coefficients. People's newspaper exposure's final beta (.15) was significant as well.

Overall, in terms of people's long-term political orientation, those who had high political efficacy and political interest tended to have a keen interest in the election campaign. In the campaign-related domain, people's favorable feeling toward their favorite candidates tended to boost their campaign interest. In terms of media use, those who read newspapers more often and who paid closer attention to major campaign events such as candidates' debates on TV were more likely to be interested in the campaign process.

Panel Data Analysis

The bivariate correlations between the independent variables and changes in people's voting intention during the general campaign were significant for education, political interest, and campaign interest change (Table 5). The campaign interest change had the strongest relationship with the dependent variable (r=.31); this relationship remained significant after demographic control (beta=.30). The incremental R2 of campaign involvement was .086.

The negative association of education (r=-.18, beta=-.22) and political interest (r=-.25, beta=-.23) with changes in one's willingness to vote should be interpreted with caution. Since only 4.7% of respondents' voting intention decreased during the campaign, these associations should be interpreted as indicating that people with higher education and greater political interest were more likely to have a consistent degree of voting intention throughout the campaign. In other words, those with lower education and less interest in politics tended to develop their willingness to vote during the campaign. In terms of incremental R2, the social-psychological category explained 4.7% of the dependent variable's variance. However, the demographic block's R2 change was not significant.

Changed patterns in people's media use did not significantly affect the change in their stated likelihood of voting. Nor did the category's incremental R2 appear to be significant.

The portion of the total variance in people's voting intention change explained by the four blocks analyzed was 20.4% (Table 6). The social-psychological (.047) and campaign involvement (.080) blocks' R2 changes were significant. The other blocks did not show any independently significant contribution after relevant controls. Only two variables' final betas were significant: political interest (-.23) and campaign interest change (.27), of which people's campaign interest change was a stronger indicator.

Thus, those who came to be more interested in the campaign became more willing to participate in voting during the campaign period; and people whose political interest was low were more likely to experience an increased inclination to vote during the campaign.

The relationship between people's political interest and voting intention change presented a simple, but important question: why was it that people with low political interest were increasingly willing to vote as the campaign unfolded? The frequency distribution of vote intention change for the high political interest group (i.e., respondents located at the upper half of the scale) revealed that almost 86% of the sample had demonstrated no change in their stated intention to vote, while 42% of the low political interest group (i.e., respondents at the lower half of the scale) indicated that their intention to vote had changed. These frequency differences again mandated further inquiry. Thus, a separate regression analysis was employed to see which factors affected those with low political interest in terms of their voting intention change (Table 7).

Among the low political interest group, as expected, people's campaign interest change showed a strong positive association with the dependent variable in terms of both r (.47) and final beta (.39). What is more interesting, however, is the significant correlation between people's TV use pattern and change in their willingness to vote (r=.40 and final beta=.52). These findings demonstrate that among people with a low level of political interest, those whose television viewing related to the campaign increased tended to be more inclined to vote as the campaign proceeded.

As an individual indicator, this TV use variable was a stronger predictor than the campaign interest variable, based on the comparison between final betas. As a block, the media block's incremental R2 (.149) was marginally significant (sig. of F change=.065). However, it must be emphasized that the incremental R2 of the media block was produced after controlling for 8 variables in the three preceding blocks, including campaign involvement. Also, in a separate analysis, the incremental R2 of the media block, after controlling for demographic and social-psychological blocks, was as large as .262 (sig. F change=.012, this finding is not shown in tables). Thus, it is fair to conclude that the media block was as significant as campaign involvement in explaining the variance in the dependent variable.

As seen in Table 8, the media variables' strong relationship with people's campaign interest change was apparent. The people's campaign media use category explained 19.4% of the total variance of the dependent variable after demographic controls. People's increasing use of campaign stories in the media in such areas as newspaper attention (.32), TV exposure (.35), and TV attention (.38) led to people's increasing campaign interest. Newspaper attention (beta=.26) and TV exposure (beta=.20) retained significant associations even after the demographic variables were controlled for. However, except for age (r=-.18, beta=-.18), all the other variables were not significantly related to people's campaign interest change; nor was the incremental R2 significant.

The hierarchical regression in Table 9 reassures us that there was a strong relationship between the media variables and campaign interest change. The media block independently explained almost 20% of the total variance in the dependent variable.

The final betas of changes in newspaper attention (.24) and TV exposure (.23) showed significant associations, thereby indicating that, as the campaign proceeded, those who came to watch more campaign stories on TV and read campaign-related articles more closely in newspapers became more interested in the campaign.

Conclusion and Discussion

In the cross-sectional data analysis, findings supported the results obtained by Weaver et al. (1995). Campaign interest was the most significant variable predicting people's stated willingness to participate in voting, and the media variables were strong indicators explaining people's campaign interest. Such media impact remained significant even though various long-term and campaign-related political variables were simultaneously considered in a regression equation.

The significant influences of education and the strength of partisanship were replicated, as found in voter turnout literature (Aldrich & Simon, 1986). Other long-term political orientations, such as political efficacy and general political interest, and people's affirmative feeling toward their favorite candidates were found to bolster their interest in the campaign, but not their willingness to vote. Among all the variables significantly related to respondents' campaign interest, people's viewing of major election events via the media (i.e., televised candidate debates) was most impressive in terms of predicting how strongly people were interested in the ongoing campaign process.

In addition, a tendency for people not to "waste" what they have invested during the campaign (i.e., resources so invested as to perceive some difficulty in deciding on their favorite candidates) was observed, whereby people who perceived more difficulty tended to be more willing to vote. The difficulty indicator's final beta was the second most significant coefficient, and explained 4.0% of the variance of the dependent variable, even after controlling for demographic and social-psychological variables. In future research, such a campaign investment dimension and its relationship with people's media use in explaining their electoral behaviors may need more attention.

One interesting finding is the negative relationship between people's exposure to TV talk shows and their stated willingness to vote. This relationship remained significant even after 18 variables in 7 blocks were considered. One simple interpretation may be that the more strongly one intended to vote, the less likely s/he was to watch TV talk shows, because of the perception that these shows dealt with less substantive political issues. However, a recent investigation of this relatively new component of political communication provided a different explanation.

Hollander (1995) found that for those with low education levels the more they watched talk shows, the more likely they were to perceive themselves as being knowledgeable about election issues, without actually gaining knowledge. That is, watching talk shows may provide people with a sense of being informed, thereby making them less likely to seek other informational sources. Along the same line of reasoning, the interactive nature of talk shows may give heavy viewers a feeling of electoral participation, which may replace their actual participation in voting, by satisfying their needs for electoral participation.

Some findings in this study suggest that the impact of talk shows may be rather complex. Before people's major event media use was considered, TV talk show exposure appeared to be significantly related to campaign interest (regression equation 6 in Table 4), which predicted greater participation at the polls. On the basis of these findings, we can generalize that among talk show viewers, if their watching contributed to their campaign interest, their voter turnout was likely to be boosted by such viewing; but if they could not make the connection between talk shows and an ongoing campaign, their increased viewing further isolated them from politics in the real world. Whether the connection was realized or not should depend to a great degree upon how talk show contents were constructed.

In the panel, it was again found that those who became more interested in the campaign tended to be increasingly willing to vote as the campaign proceeded. Also, as people became more frequent and attentive users of the media, their interest in the campaign grew during the campaign period.

In sum, the media variables' relationship with people's stated willingness to vote was found to be indirect, rather than direct. Media factors appeared to influence the pre-condition (i.e., campaign interest) which was strongly associated with people's stated likelihood to vote.

In the panel analysis, the concept of voter turnout, or willingness to vote, was alternatively understood as a dynamic construct. Rather than simply understanding voter turnout or intention to vote as being realized at a single point in a campaign or as being immutable as a consequence of people's long-term political predispositions, in this study it was proposed that the decision about whether or not to vote might in part mature during the campaign, that is, would be a product of the campaign process. The panel data revealed that while 76% of the sample showed a consistent level of willingness to vote, the voting intention of 24% of the respondents changed during the campaign. Consequently, questions were raised as to why willingness to vote changed for some people and not for others, and why some people's intention to vote changed to a greater degree. The findings indicated that the conception of the intention to vote as a dynamic concept was plausible empirically as well as theoretically. Some variables investigated, including media variables, were found to be meaningfully associated with the dependent variable, as discussed above.

One part of the findings which is suggestive for future research in this process-oriented approach is the media variables' role in increasing the low political interest group's willingness to vote during the campaign. Particularly, their increasing TV watching helped to boost their inclination to vote over the course of the campaign, even more strongly than did their campaign interest.

The process-oriented approach may necessitate researchers to look beyond short-term political variables, such as campaign interest, in terms of media effects on political variables in the electoral process. At least one study reported findings which suggest possible variation in long-term political orientation during the campaign period (Brody, 1977, who was interested in changes in the intensity of partisan identification). If such a phenomenon, i.e., the volatility of long-term political variables which have been considered rather stable, can be generalized to other variables, the media's role in the voter turnout process may prove to be even more significant than past studies have indicated. People's sense of civic duty to vote, which is one of the most important predictors of people's voter turnout (Nichols et al., 1995), may be relevant in this context. Given many media organizations' explicit efforts to emphasize civic duties and to increase voter turnout (e.g., MTV's "Rock the Vote" campaign), the media's influence on people's perceived civic duty during a campaign may be expected.

Thus, the influence of the media on people's political behaviors during a campaign period cannot be satisfactorily ascertained without investigating the dynamic nature of related variables: people's political orientation, political behaviors, and media use. These processes cannot be captured by a cross-sectional survey conducted in late October before the election, when, for example, people's sense of duty should be operating fully. Longitudinal research such as that based on panel designs is necessary so that we can trace the changes in people's sense of civic duty over a longer period of time, the effect of such changes on people's inclination to vote, and the media's role in these processes.

Finally, several limitations of this study can be noted. First of all, some crucial variables were omitted. In addition to civic duty to vote, which was already mentioned, rational abstention and utility calculation (see Dennis, 1991b) are some examples. Inclusion of these variables in future research may further clarify the role of the media in the turnout process. In addition, this study fell short of investigating the reciprocal relationships among various variables investigated, other than noting the indirect impact of media use on people's willingness to vote through campaign interest. Thus, testing relationships between media variables and various variables raised in the turnout literature and identifying different paths leading to people's turnout behaviors can be a next step.

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Table 1
Preliminary Analysis of People's Willingness to Vote
Bivariate Correlations and Regression Analysis Controlling for Demographic Variables

	r	beta	Incremental R2(%)
Demographic			
age	.06	.06	
sex (female)	.01	.02	
education	.18**	.16**	
income	.15**	.10	4.6%***
Social-Psychological			
partisan support (supporter)	.16**	.14**	
general political interest	.22***	.18***	
personal efficacy	.10*	.03	
general efficacy	.05	.01	5.4%***
Campaign Involvement			
candidate affect	.17**	.02	
campaign interest	.33***	.30***	9.3%***
Rational Choice Model			
difficulty in decision	.16**	.18***	
value of vote	.05	-.07	3.5%***
General Media Use			
NP political news exposure	.18***	.14	
NP political news attention	.16**	.02	
TV political news exposure	.07	-.03	
TV political news attention	-.02	.01	
TV talk show exposure	-.01	-.01	2.1%
Major Event Media Use			
debate exposure	.16**	.09	
debate attention	.17**	.08	2.4%

n=421

* p<.05 **p<.01 ***p<.001

Note: betas refer to standardized regression coefficients
the demographic variables were analyzed without controlling for other blocks of variables.

Table 2
Hierarchical Regression Analysis of People's Willingness to Vote

	R1	R2	R3	R4	R5	R6	R7
Demographic							
age	.06	.05	.05	.07	.06	.06	.05
sex(female)	.02	.04	.02	.03	.02	.03	.03
education	.16**	.11*	.13**	.15**	.15**	.13**	.13**
income	.10	.09	.08	.08	.07	.06	.07
Social-Psychological							
partisan support(supporter)		.14**	.10*	.10*	.10*	.11*	.11*
general political interest		.18***	.04	.06	.05	.05	.06
personal efficacy		.03	.00	.02	.03	.02	.01
general efficacy		.01	-.01	-.02	-.02	-.02	-.02
Campaign Involvement							
candidate affect			.00	.06	.06	.06	.05
campaign interest			.27***	.25***	.25***	.28***	.30***
Campaign Investment							
difficulty in decision-making				.21***	.22***	.23***	.23***
Rational Choice Model							
value of vote					-.07	-.08	-.08
General Campaign Media Use							
NP political news exposure						.07	.06
NP political news attention						.05	.05
TV political news exposure						.01	.00
TV political news attention						-.10	-.09
TV talk show exposure						-.11*	-.11*
Major Event Media Use							
debate exposure							.09
debate attention							-.11
R-square (%)	4.6	10.0	14.8	18.9	19.3	21.4	22.0
Incremental R-square (%)	4.6	5.4	4.9	4.0	0.4	2.2	0.6
Significance of F Change	.000	.000	.000	.000	157	.050	.241

n=421

* p<.05 **p<.01 ***p<.001

Note: betas refer to standardized regression coefficients

Table 3
Preliminary Analysis of People's Interest in Campaign
Bivariate Correlations and Regression Analysis Controlling for Demographic variables

	r	beta	Incremental R2
Demographic			
age	.07	.07	
sex (female)	.03	.02	
education	.08	.07	
income	.08	.06	1.4%
Social-Psychological			
partisan support (supporter)	.21***	.16***	
general political interest	.51***	.50***	
personal efficacy	.18***	.11*	
general efficacy	.17**	.09*	30.6%***
Campaign Involvement			
candidate affect	.32***	.28***	7.8%***
Campaign Investment			
difficulty in decision	-.05	-.03	.10%
Rational Choice Model			
value of vote	-.02	-.01	.0%
General Media Use			
NP political news exposure	.33***	.27***	
NP political news attention	.28***	-.10	
TV political news exposure	.13**	-.11	
TV political news attention	.35***	.26***	
TV talk show exposure	.26***	.18***	18.1%***
Major Event Media Use			
debate exposure	.45***	.04	
debate attention	.61***	.57***	35.5%***

n=421

* p<.05 **p<.01 ***p<.001

Note: betas refer to standardized regression coefficients
the demographic variables were analyzed without controlling for other blocks of variables.

Table 4
Hierarchical Regression Analysis of People's Campaign Interest

	R1	R2	R3	R4	R5	R6	R7
Demographic							
age	.07	.01	.01	.02	.02	.00	-.02
sex(female)	.02	.07	.05	.05	.06	.04	.04
education	.07	-.07	-.05	-.05	-.05	-.04	-.05
income	.06	.03	.03	.03	.03	.02	-.01
Social-Psychological							
partisan support(supporter)		.15***	.12**	.12**	.12**	.10*	.06
general political interest		.50***	.48**	.48**	.48**	.37***	.29***
personal efficacy		.11*	.09*	.10*	.10*	.11*	.10*
general efficacy		.09*	.08	.08	.08*	.05	.07*
Campaign Involvement							
candidate affect			.16***	.18***	.18***	.20***	.14***
Campaign Investment							
difficulty in decision-making				.06	.06	.05	.02
Rational Choice Model							
value of vote					.00	.01	-.01
General Campaign Media Use							
NP political news exposure						.18*	.15*
NP political news attention						-.14	-.12
TV political news exposure						-.06	-.06
TV political news attention						.18**	.08
TV talk show exposure						.10*	.03
Major Event Media Use							
debate exposure							-.01
debate attention							.43***
R-square (%)	1.4	32.0	34.3	34.7	34.7	39.2	52.2
Incremental R-square (%)	1.4	30.6	2.3	0.4	0.0	4.5	13.0
Significance of F Change	.204	.000	.000	.130	.907	.000	.000

n=421

* p<.05 **p<.01 ***p<.001

Note: betas refer to standardized regression coefficients

Table 5
Preliminary Analysis of Changes in People's Willingness to Vote
Bivariate Correlations and Regression Analysis Controlling for Demographic Variables

	r	beta	Incremental R2
Demographic			
age	-.13	-.15	
sex (female)	.01	-.06	
education	-.18**	-.22*	
income	-.03	.02	5.8%
Social-Psychological			
partisan support (supporter)	-.02	.00	
political interest	-.25**	-.23**	4.7%*
Campaign Involvement			
candidate affect change	.07	.00	
campaign interest change	.31***	.30***	8.6%**
General Media Use			
NP campaign exposure change	.13	.08	
NP campaign attention change	.12	.04	
TV campaign exposure change	.16	.17	
TV campaign attention change	.10	-.05	3.4%

n=131

* p<.05 **p<.01 ***p<.001

Note: betas refer to standardized regression coefficients
the demographic variables were analyzed without controlling for other blocks of variables.

Table 6
Hierarchical Regression Analysis of Changes in People's Willingness to Vote

	R1	R2	R3	R4
Demographic				
age	-.15	-.15	-.10	-.09
sex(female)	-.06	-.10	-.10	-.09
education	-.22*	-.18	-.18	-.17
income	.02	.01	.02	-.02
Social-Psychological				
partisan support(supporter)		.00	.03	.03
political interest		-.23*	-.21*	-.23**
Campaign Involvement				
candidate affect			.01	.02
campaign interest			.29***	.27**
Campaign Media Use				
NP campaign exposure change				.08
NP campaign attention change				-.02
TV campaign exposure change				.16
TV campaign attention change				-.12
R-square (%)	5.8	10.5	18.5	20.4
Incremental R-square (%)	5.8	4.7	8.0	1.9
Significance of F Change	.108	.041	.003	.587

n=131

* p<.05 **p<.01 ***p<.001

Note: betas refer to standardized regression coefficients.

Table 7
Hierarchical Regression of Changes in Willingness to Vote
among Low Political Interest Group

	r	R1	R2	R3	R4
Demographic					
age	-.25	-.22	-.25	-.03	-.04
sex(female)	.01	-.11	-.13	-.12	-.13
education	-.25	-.27	-.24	-.42*	-.38*
income	.00	.05	.03	.07	.00
Social-Psychological					
partisan support(supporter)	.13		.08	.14	.15
political interest	-.02		-.09	-.02	-.20
Campaign Involvement					
candidate affect	.11			.10	.12
campaign interest	.47**			.51**	.37*
Campaign Media Use					
NP campaign exposure change	.24				.11
NP campaign attention change	.18				.14
TV campaign exposure change	.40**				.52*
TV campaign attention change	.18				-.31
R-square (%)		12.0	13.3	35.1	50.0
Incremental R-square (%)		12.0	1.2	21.9	14.9
Significance of F Change		.250	.760	.005	.065

n=46

* p<.05 **p<.01 ***p<.001

Note: betas refer to standardized regression coefficients

Table 8
Preliminary Analysis of Changes in People's Campaign Interest: Bivariate Correlations and Regression Analysis Controlling for Demographic Variables

	r	beta	Incremental R2
Demographic			
age	-.18*	-.18*	
sex (female)	.00	.00	
education	.02	.00	
income	-.05	-.05	3.7%
Social-Psychological			
partisan support (supporter)	-.09	-.09	
political interest	-.05	-.05	1.1%
Campaign Involvement			
candidate affect change	.13	.10	1.0%
Campaign Media Use			
NP campaign exposure change	.13	-.05	
NP campaign attention change	.32***	.26*	
TV campaign exposure change	.35***	.20*	
TV campaign attention change	.38***	.15	19.4%***

n=131

* p<.05 **p<.01 ***p<.001

Note: betas refer to standardized regression coefficients
the demographic variables were analyzed without controlling for other blocks of variables.

Table 9
Hierarchical Regression Analysis of Changes in People's Campaign Interest

	R1	R2	R3	R4
Demographic				
age	-.18*	-.18*	-.17	-.10
sex(female)	.00	-.01	.00	.03
education	.01	.02	.04	.06
income	-.05	-.06	-.06	-.07
Social-Psychological				
partisan support(supporter)		-.09	-.08	-.05
political interest		-.05	-.06	-.09
Campaign Involvement				
candidate affect			.10	.12
Campaign Media Use				
NP campaign exposure change				-.05
NP campaign attention change				.24*
TV campaign exposure change				.23*
TV campaign attention change				.15
R-square (%)	3.7	4.8	5.8	25.5
Incremental R-square (%)	3.7	1.1	1.1	19.7
Significance of F Change	.315	.492	.251	.000

n=131

* p<.05 **p<.01 ***p<.001

Note: betas refer to standardized regression coefficients

Appendix 1
Hierachical Regression Analysis of People's Willingness to Vote (W2)
(Regressor Variable Method)

	r	R1	R2	R3	R4	R5
Willingness to Vote(W1)	.69***	.68***	.69***	.69***	.71***	.70***
Demographic						
age	.12		-.02	-.01	-.01	.01
sex(female)	-.12		-.09	-.10	-.09	-.10
education	.04		-.12	-.12	-.15*	-.15*
income	.11		.07	.07	.07	.06
Social-Psychological						
partisan support(supporter)	.16			.08	.09	.08
political interest	.20*			-.02	-.07	-.06
Campaign Involvement(W2)						
candidate affect	.08				-.12	-.13
campaign interest	.21*				.18*	.19*
Campaign Media Use(W2)						
NP campaign exposure	.21*					.02
NP campaign attention	.12					-.10
TV campaign exposure	.17					.07
TV campaign attention	.11					.00
R-square (%)		47.1	48.7	49.3	52.2	53.1
Incremental R-square (%)		47.1	1.6	0.6	2.9	0.9
Significance of F Change		.000	.414	.473	.028	.706

n=131

* $p<.05$ **$p<.01$ ***$p<.001$

Note: betas refer to standardized regression coefficients

In the regression analyses reported in both appendices 1 and 2, the dependent variable's earlier measure was entered as the first block; thereby, the residual variance after controlling for the block indicated change in the dependent variable during the campaign. The variables in the campaign involvement and campaign media use blocks were entered in the analyses with values measured at wave 2, the same wave as the dependent variable.

As seen in Appendix 1, people's willingness to vote at wave 1 was the largest block predicting their willingness at wave 2, accounting for 47.1% of the variance in the dependent variable. The variable's final beta was .70 and the coefficient was consistent around that level regardless of the subsequent inclusion of independent variables in the regression equation.

People's campaign interest was the strongest variable (final beta = .19), followed by education (final beta = -.15). The other variables were not significant. Thus, those with greater campaign interest tended to have their willingness to vote enhanced during the campaign. Also, those with lower education levels appeared to have become more willing to vote, while those with higher education levels seemed to remain consistent. As a block, only campaign involvement's incremental R2 was significant (2.9%).

These results were almost identical to those obtained by the change score method. Campaign interest was most important in predicting variation in people's willingness to vote during the campaign in both methods. Education, which was barely significant in the change score method (see Table 6; final beta = -.17; S.E. = .095; sig. T = .076), appeared to be clearly significant (final beta = -.15; S.E. = .073; sig. T = .038). However, people's political interest was not significant in the regressor variable method.

Thus, as in the change score method, the media variables' direct association with people's willingness to vote during the campaign period was not observed. Appendix 2 is an attempt to investigate the indirect association of people's media use with the dependent variable, in such a way as to be related to people's campaign interest.

Appendix 2
Hierachical Regression Analysis of Campaign Interest (W2)
(Regressor Variable Method)

	r	R1	R2	R3	R4	R5
Campaign Interest (W1)	.52***	.52***	.50***	.32***	.31***	.25**
Demographic						
age	-.05		-.09	-.07	-.07	-.10
sex(female)	-.19*		-.06	-.02	-.02	.01
education	.27**		.13	.09	.09	.09
income	.07		-.02	.01	.01	.01
Social-Psychological						
partisan support(supporter)	-.02			-.08	-.08	-.06
political interest	.55***			.35***	.35***	.24**
Campaign Involvement(W2)						
candidate affect	.24**				.04	.01
Campaign Media Use(W2)						
NP campaign exposure	.40***					-.08
NP campaign attention	.48***					.29**
TV campaign exposure	.38***					.14
TV campaign attention	.34***					.02
R-square (%)		27.3	30.8	39.2	39.3	46.2
Incremental R-square (%)		27.3	3.5	8.4	0.1	6.9
Significance of F Change		.000	.178	.000	.651	.007

n=46

* p<.05 **p<.01 ***p<.001

Note: betas refer to standardized regression coefficients

As the first control block, people's campaign interest at wave 1 explained 27.3% of the total variance in their campaign interest at wave 2. The beta coefficient, which was as high as .52 in the first regression equation, became small (final beta = .25), as independent variables such as political interest and media variables were subsequently entered in the equation.

The variation in people's campaign interest during the election period was partly explained by their political interest (final beta = .24). Also, people's closer attention to campaign stories in newspapers (final beta = .29) was significantly associated with the variation in the dependent variable during the campaign. Thus, it appears that those with higher political interest and greater newspaper attention experienced their campaign interest to increase during the period.

As a block, after controlling for campaign interest at wave 1 and demographic variables, social-psychological block's contribution was significant (R2 = 8.4%), mainly due to political interest. The media block's incremental R2, obtained after considering all the other blocks, was also significant (6.9%).

The strong association between people's media use and the increment in their campaign interest was replicated in the regressor variable method. The final beta of people's newspaper attention was even slightly greater than their campaign interest at wave 1. General interest in politics, which was not significant in the change score method (see Table 9; final beta = -.09; S.E. = .085; sig. T = .278), however, turned out to be significant in the present analysis (final beta = .24; S.E. = .090; sig. T = .008).

Amount of Invested Mental Effort and Learning from Media: A Conceptual Review

Abstract

This conceptual review examines a model of the effects of amount of invested mental effort (AIME) on learning from media. The model proposes that individual perceptions including perceived demand characteristic (PDC) and perceived self-efficacy (PSE) affect AIME, and that AIME affects learning. The review shows that attempts to operationalize PDC have met little success; the relationship between PSE and AIME is questionable, but encourages further research; and the relationship between AIME and inferential learning has generally been supported.

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Amount of Invested Mental Effort and Learning from Media:
A Conceptual Review

Introduction

Richard Clark (1983) reviewed research on learning from media and concluded that media are "mere vehicles that deliver instruction but do not influence student achievement any more than the truck that delivers our groceries causes changes in our nutrition"(p. 445). The conclusion led to many reactions and criticisms in literature related to media use in education. Nonetheless, a decade later, Clark (1994) restated his conclusion, writing that even his most outspoken critics agreed that "...there is no compelling evidence in the past 70 years of published research that media cause learning increases under any conditions" (p. 25).

However, the growing use of new media in society and education has still raised many questions about how people learn from different sources. Researchers asking questions such as "Is learning from different media distinctive?" as Neuman did when she experimented with fifth-graders' learning from text and video, are still finding results that "...the medium per se may have little direct influence in cognition and learning" (119). Results with computers are hardly different. Fletcher-Flinn and Gravatt (1995) tested the efficacy of computer-assisted instruction (CAI) in a meta-analysis and found that "...what accounts for the typical learning advantage of CAI in this meta-analysis and others is the better quality instruction provided by CAI materials," rather than any inherent characteristic of computers (p. 219). In another example, Rice (1994) examined reading comprehension using two presentation formats: paper and computers. No significant effects were found for mode of presentation. This study concluded that "...reading comprehension constructs appear to be the same between computer presentation and paper presentation of text" (p. 153). These findings are all in line with Wilbur Schramm's claim that learning is influenced more by the content and type of instruction offered by a medium than by the medium itself (Schramm, 1977, cited in Clark, 1994).

Clark agrees "wholeheartedly" with the views of Gavriel Salomon and others who point to differences in both cognitive processes and motivation which are attributable to "learners' beliefs and expectations about their reactions to external events -- not to external events alone:"

> There is compelling research evidence that students' beliefs about their chances to learn from any given media are different for different students and for the same students at different times. (Clark,1994, p. 23)

In the early 1980s, Salomon developed a model to examine the way people learn from different media. His initial studies focused on the differences in learning between print and television among sixth graders. The central variable in Salomon's work is the amount of invested mental effort that individuals expend in different situations. The amount of invested mental effort (AIME) is defined in terms of mental elaboration on information and level of automaticity employed in information processing. More elaboration and less automaticity represent greater AIME. For the purposes of this review, AIME is identified by self-reports, as it was in Salomon's original work. Salomon posits that more AIME will mean better learning.

The next section of this paper will further explain Salomon's model including definitions of key variables and the proposed relationships among them. Then the method of collecting studies for this review, and its limitations, will be discussed. Studies that were conducted in the initial development of the model will be reviewed as will studies that have since empirically tested parts of the model. Since each study builds on earlier work, this review is organized in a chronological manner. The purpose of this paper is to determine the utility of Salomon's model and its components for future research on learning from media.

AIME and Learning: An Overview of Salomon's Model

Salomon (1981a) reasoned that the amount of mental effort invested is not dependent on the stimulus alone. He cited Katz, Blumler, and Gurevitch (1974) to explain how individuals perceive different media in different ways. Katz and his colleagues found that many people look to newspapers to connect to a larger society, but use books introspectively to "know themselves" better. In an attempt to explain this phenomenon, Salomon wrote that "Sources are composed of different parts, but we selectively anticipate certain parts that are distinctive to a source, often underweighing everything that is not within the selected parts" (1981a, p127). He extends his explanation by mentioning how schools often become considered exclusively print-oriented, art museums only aesthetic, and newspapers as connections to society. Although each source serves other functions, these other functions become overlooked. Audience members weigh the attributes of different media unevenly, processing some messages more deeply than others. The idea of AIME was born from this idea of variable levels of information processing across different media.

The stimulus, then, does not necessarily dictate the amount of invested mental effort it requires. For example, a facial expression, which could easily be perceived as a simple stimulus, could also be perceived as a complex means of communication requiring extensive elaboration for proper interpretation. To the contrary, a complex poem could be perceived as meaningless and generate almost no inferences or elaboration.

Salomon's position that increased mental effort will increase learning is based on a wide body of cognitive, educational and social psychology literature. Some processes, according to Salomon, are automatic and require little mental effort while other, deeper processes involve more purposeful mental elaboration. Craik and Lockhart (1972), Kane and Anderson (1978), Bobrow and Collins (1975), and Kintsch (1977) are cited in support of the idea that information processed with more elaboration comes into greater contact with mental schemata, "...thus leaving more memory traces and enriching the meanings arrived at" (Salomon, 1983a, p. 43). Salomon also cites empirical studies by Langer and her colleagues (e.g., 1978) in several of his explanations of AIME (e.g. 1981a, 1981b, 1983a, 1984). Langer's construct of "mindlessness" is used to explain the way in which individuals sometimes rely on the structure of a situation to represent underlying meaning rather than processing information at a deeper level, or more "mindfully." Salomon (1983a) points out the similarities of the mindful/mindless processing construct with the shallow/deep processing construct:

> It appears that mindlessness (vs. mindfulness) and shallow processing (vs. deep) are closely related to each other. For Langer, mindlessness in processing means ignoring information which is perceived to be already known... Shallow processing, as dealt with by Craik, Kintsch and others, means automatic processing of well rehearsed features, while deep processing means effortful employment of non-automatic elaborations (p. 44).

When familiar material is encountered that is perceived to be easily understood (regardless of whether it actually is easily comprehended), individuals tend to invest less mental effort in processing the information. But when material perceived to be new, unfamiliar, or complex is encountered, higher AIME is likely. Hence, better learning will result. Individuals, according to Salomon's model, base their perceptions of different stimuli largely on past experiences with the stimuli.

AIME is described by Salomon as a product of an individual's mental elaborations and level of automaticity in information processing. These elaborations and level of automaticity, in turn, affect learning outcomes. Salomon defines AIME with the following equation: AIME = number of elaborations X 1/automaticity. More elaborations and less automaticity equals greater AIME.

In his early work on AIME (1981a, 1981b, 1983a, 1983b, 1984), Salomon presented a model of learning from media which had four major components -- perceived demand characteristic (PDC), perceived self-efficacy

(PSE), amount of invested mental effort (AIME), and finally learning. Salomon's general argument is that "...learning from different sources greatly depends on the differential way in which these sources are perceived, for these perceptions determine to an important extent the mental effort expended in the learning process" (1983a, p.42). Individuals' perceptions (PDC and PSE) "jointly" affect AIME, which in turn affects learning (1983a, p. 47).

Nominal definitions of variables

The perceived demand characteristic of a particular stimulus, task, or context is a term used by Salomon to describe the amount of effort people perceive as necessary to process information. PDC is based on two key aspects. The first is perceived realism. "When a mode of presentation is perceived as undistorted, unbiased, true, familiar, or real, it needs the investment of only little mental effort" (Salomon, 1981b, p.94).[1] The second is the perceived "easiness" of the information, context or task. Media which are seen as easy are, by definition, perceived to be less demanding. Salomon posits that television, although potentially just as demanding as other media, has a lower minimum of effort required for enjoyment and therefore is often seen as demanding much less effort overall by viewers. He attributes this perception both to the perceived realism (especially for children) of television's explicit visual nature and its perceived easiness due to its low demand on effort for minimal understanding of content. On the other hand, he hypothesizes that print is often seen as less real, and also less "easy" because it requires more effort than television for minimal understanding. In other words, print media generally have a higher PDC than television.

The other major factor affecting AIME in Salomon's model is perceived self-efficacy (PSE), "...one's belief in one's ability to perform certain activities" (Salomon, 1981a, p. 135). The construct of PSE is derived from Bandura's (1977a) social learning theory. Some children, for example, may perceive their reading skills as low, but assume that they have mastered television viewing. These children would have greater PSE with televised messages than with the same information in print.

Learning follows AIME in Salomon's model. Of course, there are countless ways of defining and measuring learning. In most of Salomon's early tests of the AIME model, learning is examined in terms of either post-exposure tests of factual recognition of explicitly-presented information from the presentations, or tests of inferences resulting from the same presentations, or both. As with the other variables in this model, operational definitions of learning have sometimes differed in the array of studies that have applied Salomon's model.

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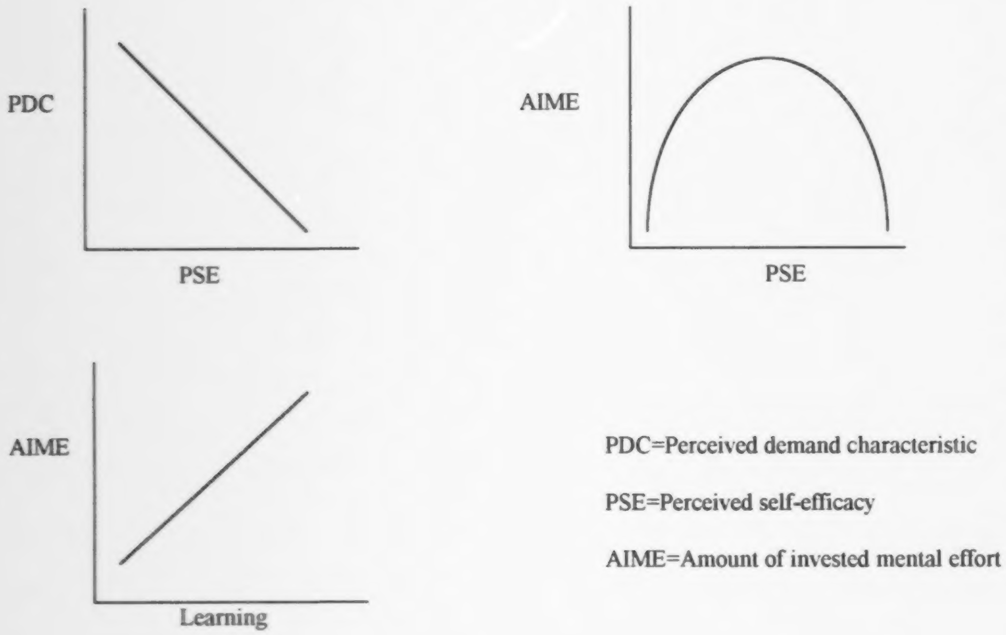
[1] Salomon (1981) cites previous work including Anderson, et al. (1977) and Kintsch (1977) in making this assertion. See pages 93-95 for more detailed support.

Proposed relationships

If a person is exposed to the same information through two different media, and the person considers one medium significantly "easier" than the other, from which medium will the person learn more? At first glance, the answer to this question would seem to be easy -- the person will learn more from the easy medium. But, as Salomon has proposed, the easy answer may not always be the best one. The above variables may be related in the following manner. First, the perceived demand characteristic of a medium may be negatively correlated with perceived self-efficacy. The more effort a person thinks a particular message, medium, or situation demands, the less confident they will be in meeting those demands. Second, the correlation between perceived self-efficacy and the amount of invested mental effort may be curvilinear (Salomon, 1981a). If an individual's perceived self-efficacy is very low, or approaching zero, their amount of invested mental effort will likely also be very low. That is, since they perceive such a low probability of success in processing the information, they most likely will not think it is worthwhile to even try. However, most media people encounter on a daily basis do not pose such overwhelming challenges. In situations of moderate difficulty, Bandura (1977b) found that higher self-efficacy generally results in greater investment of mental effort and greater persistence in overcoming difficulties. But Salomon found in his early studies (to be discussed next) that the relationship between self-efficacy and amount of invested mental effort can be negative in some cases. Salomon hypothesized that the positive relationship between self-efficacy and the amount of invested mental effort "...exists only up to a certain point; beyond that, people relinquish the investment of effort, as they are sure the messages or tasks are familiar and easy" (1981a, p.136). So the relationship resembles an inverted "u" -- when perceived self-efficacy is very low or very high, AIME is hypothesized to be low, and when PSE is moderate, AIME is hypothesized to be higher.

Third, based on the literature Salomon cited in defining AIME as a concept related to deeper information processing, "mindfulness," and more non-automatic elaboration, AIME should correlate positively with learning.

Proposed Relationships of Variables



PDC=Perceived demand characteristic

PSE=Perceived self-efficacy

AIME=Amount of invested mental effort

Limitations and Methods of this Conceptual Review

By 1984, Salomon had developed his ideas into a slightly more complex model which included variations on the different interrelationships of the four main variables: PDC, PSE, AIME, and learning. In addition, he (1984) proposed a feedback loop to indicate the cyclical nature of the relationships. The present review will focus on the three key relationships hypothesized: a negative correlation between PDC and PSE, a curvilinear correlation between PSE and AIME, and a positive correlation between AIME and learning. The remainder of this paper will document the results of an extensive search of available literature for studies pertaining to Salomon's concept of AIME, and relevant findings in these studies will be discussed.

To locate research related to AIME, a systematic literature search was conducted. Two computer databases, Educational Resources Information Center (ERIC) and PsychInfo, were searched using the keywords, "invested mental effort." The abstracts were then scanned and articles that were obviously unrelated were eliminated. The remaining articles were reviewed and bibliographies scanned for other related articles, which were then also gathered. At this step, it became apparent that nearly all related articles published after 1984 cited Salomon's (1984) "Television is 'easy' and print is 'tough'..." which was published in *Journal of Educational Psychology*. So the final step in searching the literature involved searching the *Social Science Citation Index* for any articles which cited Salomon's (1984) article in each year from 1984 to 1996. The only limitation on the overall search process was availability. Any articles that were not available on ERIC microfiche or in the University library system were not included. There were very few studies (one published and two unpublished) that could not be gathered and therefore could not be reviewed for relevance to this conceptual review.

Initial Studies and Measures

Salomon's model was first developed and tested in the early 1980s with two of his own experiments and one other study which was a combination of survey and experimental research. The first experiment (discussed in Salomon, 1981a, 1981b, and 1984) was conducted with 124 sixth-grade children in the San Francisco Bay area. Salomon (1984) describes the different measures used in detail. This paper will review them briefly. PDC was operationalized with two measures on a questionnaire administered a week in advance of exposure. The first measures (six questions) concerned children's perceptions of the realism of TV and print materials. Replies to these six questions ranged from low realism to high realism on a five-point scale. An average score was computed for each respondent (Cronbach Alpha = .71). The second set of measures of PDC pertained to children's causal attributions of success or failure to learning from television or print. The causal attributions available for these four forced-choice questions were based on the internal causes of ability or inability, and effort or no effort (i.e. "because that student was smart," "because that student tried hard"). Other questions focused on external causes for success in learning (i.e. "TV is always easy stuff," "that book was easy.").

PSE was determined by asking students, "How easy would it be for you to learn how to _______ from a book (or TV program)?" Ten items were plugged in to this question including "solve a math problem," "build a model," and "know the life of a famous person." Each question could be answered on five-point scale ranging from very easy to very difficult. Scores were then added to calculate the overall PSE score which yielded a Cronbach Alpha of .89 (Salomon, 1984, p. 652). This index was adapted for studying media use from Bandura (1977b).

AIME was measured with a four-question, self-report questionnaire administered subsequent to exposure to TV or print. The four questions follow:

- How hard did you try to understand the film (story)?
- How hard did your friends in the room try to understand the film (story)?
- How much did you concentrate while watching (reading)?
- How easy to understand was the story?

A scale of effort ranging from one (lowest) to four (highest) accompanied the questions and an average score for each subject was calculated (Cronbach Alpha = .81). The issue of the limitations of this self-report measure was addressed by Salomon and will be discussed below.

The final variable, achievement, was composed of two measures: inferential learning and factual recognition. Inferential learning was measured with four open-ended questions "... pertaining to possible motives and causes neither explicitly shown in the film nor described in the text" (Salomon, 1984, p.652). Scores of one to three were given by two independent graduate student coders (interscorer reliability = .87, Cronbach Alpha = .76). Factual recognition was measured with ten multiple-choice questions pertaining to specific facts made explicit in the story (Cronbach Alpha = .92). Salomon found in this study that children definitely had different perceptions of TV and print.

> ...most subjects perceived successful comprehension of print to reside in readers but success in comprehending TV was attributed mainly to the ease of the medium. And whereas failure with print was attributed by many to its difficulty, failure in comprehending TV was perceived to reside mainly in the viewers...(Salomon, 1984, p. 653)

Children also reported television to be more realistic than print. PDC was lower for TV than print, and PSE was higher for television than print. That is, children perceived television as "easy" and print as relatively "tough" and, as expected, their perceived self efficacy was significantly lower for print than TV.

PSE positively correlated with AIME in the print group (r=.37), but PSE negatively correlated with AIME in the TV group (r=-.49). The print group findings were consistent with previous research by Bandura where he found that higher perceived self-efficacy leads to greater effort in the face of obstacles. However, the very high PSE for TV correlated negatively with AIME. Although Salomon explained the relationship between PSE and learning in separate terms for "easy" and "tough" media, this finding is in line with the hypothesized curvilinear, inverted-"u" relationship in which moderate levels of PSE correlate with the highest levels of AIME while extreme levels correlate with lower AIME. Apparently, children perceived TV as very easy with little mental effort necessary to process information and they perceived books as tough enough to warrant additional mental effort. However, neither source was perceived as so tough that children relinquished mental effort.

Finally, the San Francisco study showed positive relationships between AIME and overall achievement for both print and TV groups ($r=.64$ and $r=.67$, respectively at $p<.01$). Thus, Salomon's theoretical model surrounding the AIME construct was introduced. But limitations on the model were soon evident based on the findings in similar early studies testing it.

Salomon carried out his second AIME experiment with sixth-graders in Israel. He modeled it after the San Francisco study. Only highlights of this study were discussed (in Salomon 1981b). An interesting finding was the lack of difference between children's levels of perceived self-efficacy with television and print. Salomon also found that Israeli children invested similar amounts of mental effort in both TV and text sources. He proposed that Israeli children took television more seriously than American children, again suggesting that the differences do not lie in the medium alone. He pointed to cultural differences in viewing experiences that led American children to perceive television as easier than print while Israeli children perceived both sources as difficult.

Furthermore, the relationship between PSE and AIME was negative (-.28) in the print condition and this relationship was "...strongest (-.53) for that subsample of poor readers who were also the ones to learn least from either film or text" (Salomon, 1981b, p.97). Salomon found that the "least skilled subjects" falsely perceived themselves as most efficacious. Thus they invested the least effort and learned the least. This finding highlights the importance of individual perceptions regardless of individual accuracy.

In support of his model, Salomon found in the Israel study that AIME positively correlated with "learning outcomes" for "the good readers in both the television condition (.68) and in the text condition (.58)" (Salomon, 1981b, p. 97). Here he discusses how children who have mastered certain skills are less likely to relinquish AIME. Children who have not yet learned to read well would not be expected to demonstrate learning from text. Nonetheless, correlations between AIME and learning for the entire group of students were not reported.

In another variation, Salomon (1983b) induced mental effort by having subjects try to make sense of information presented in jumbled video clips. In this study Salomon found little or no correlation between mental effort and achievement.[2] Cennamo (1993) suggests that the extra mental effort may have been used to "search memory for related schemata," rather than processing information. This finding, in conjunction with Salomon's discussion of the Israeli study, supports the idea that AIME leads to learning via its relationships to pre-existing schemata and ability to process information.

Kunkel and Kovaric (1983) were mainly concerned with the relationship between PDC and AIME and, in turn, the relationship between AIME and learning. As opposed to previous studies, however, they tested the effects within the medium of television rather than across different media. They first surveyed 57 undergraduates and found a significant difference between the mean AIME score for Public Broadcasting (PBS) programming and commercial television programming (4.35 and 2.98, respectively on a ten-point scale, $p<.001$). They then worked under the assumption that people tend to use more AIME when viewing PBS than when viewing commercial TV.

Kunkel and Kovaric then conducted an experiment with 85 new undergraduate subjects randomly assigned to one of four treatments. Half the students were told they would see a program made for PBS while the other half were told they would see a program made for commercial TV. In each of those conditions, demand was manipulated by telling half they would be tested on the content which was serious and educational (higher PDC). The other half did not anticipate testing (lower PDC). The subjects were then all shown the exact same program. Afterwards, they were given a questionnaire which, among other things, measured their learning from the program.

The main effect for learning was slightly higher for the PBS (higher AIME) viewers than the commercial TV (lower AIME) viewers. An interesting result, however, was that among those who thought they would be tested, there was no difference in learning based on differences in AIME. The authors suggest that this may be due to a ceiling effect for AIME. To explain how the results may apply to other situations, they suggest that the conditions in which no test was anticipated "...can be considered to represent most closely the viewing environment that people typically experience during everyday TV viewing" (p. 23). Indeed, the test manipulations likely altered PDC and its effects on PSE and AIME.

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[2] Few specific statistics were published from this study.

Additional analysis of the data from the San Francisco study revealed differences in the types of learning that resulted as a function of different levels of AIME assumed to occur in everyday media use. When Salomon (1984) calculated the results of learning tests separately for inferential and factual/recognition measures, he found that the correlation between AIME and recognition scores for TV and print (.04 and .24, respectively) were not very impressive. Essentially, factual information was retained equally well regardless of AIME. On the other hand, AIME and inferential learning correlated positively for both TV and print (.69 and .72, $p<.01$). As expected, scores on the inference test were significantly higher for children exposed to print rather than TV. Salomon (1984) reasoned that higher AIME and non-automatic processing would be expected to improve inferential learning, but that AIME "...would be expected to have no influence on such learning outcomes as incidental, unguided acquisition of facts that are involuntarily, automatically, and episodically carried out (e.g. Kane & Anderson, 1978; Kintsch, 1977)" (p.648). In other words, AIME affects inferential learning more than factual recognition, which may occur just as well via automatic processes.

Validity and Reliability of AIME Scale

The question of the validity and reliability of self -report measures of AIME has been addressed in these initial studies, as well as in many following studies. In introducing the concept and its self-report measurement method, Salomon (1984, p.648) suggested that even though individuals may "...not be valid sources of information pertaining to the factors that affect their decisions (Wilson & Nisbett, 1978)," they should be able to report with relative accuracy how much mental effort they expend. The validity of this assumption was tested mainly by examining whether the predicted relationships between AIME and learning were found based on the theoretical connection of the two variables. As noted above, the early studies of AIME did yield significant positive correlations between AIME and learning, especially inferential learning. Cronbach Alpha measures were also applied to the AIME scale. The AIME averages computed for the San Francisco study yielded .81. Earlier, Salomon (1981b) reported that he had found "reasonable reliability over time (up to .60)..." for AIME measures, although the specific statistic yielding that number was not described (p. 98). At that time, however, he wrote that he was testing alternative measures.

Salomon (1983a) compared his measure of mental effort to Kerr's (1973) secondary-task technique in which subjects are asked to respond to an outside stimulus (i.e. a flashing light) as a secondary task while working on a primary task such as reading. A longer response time to the secondary task represents more mental effort. However, Salomon asserts that this technique is "...inappropriate for cases where subjects are to perform the primary task as they would under normal conditions" (1983a, p. 44). Indeed, this way of measuring all but eliminates the possibility of subjects mindlessly performing the primary task since they must be instructed that such a task is 'primary' and to prioritize their effort expenditure. Salomon concludes this time that "Trying out various methods, my students ...and I have finally settled on the use of self-reports" (1983, p. 45).

Studies Empirically Testing Concepts and Relationships (Chronological)

Salomon & Leigh (1984)

Salomon and Leigh consider, and rule out, two alternate measures of AIME. The first measure infers mental effort from the time taken by subjects to perform tasks. The second measure is cognitive capacity usage inferred from performance on primary and secondary tasks. "The first measure is inadequate for our purposes, as it yields no direct measure of effort" and "....the secondary task technique is equally inappropriate for our purposes, as it requires the direction of subjects' attention to the primary task and therefore inhibits the treatment of effort expenditure" (p.121). They also report that although AIME self-report measures do have some limitations, their past research has shown self-reports to be "sufficiently valid" for their purposes (p.121). Two studies were reported in this article.

Measures of AIME included a pre-test questionnaire asking about specific types of material in both TV and print (i.e. sports, detective, etc.) and a general measure of AIME for TV or print "in general" (p. 123). Post-exposure AIME was measured in the same manner as Salomon's earlier studies. Inferential learning was measured with eight questions pertaining to causes for characters' behaviors, characters' thoughts, and how events were related. Six multiple choice questions pertaining to explicitly-presented facts made up the recall measure.

Salomon and Leigh (1984) supported earlier findings that, according to children, print generally commands more mental effort than TV. Pre- and post-viewing AIME measures correlated significantly with each other indicating that children's initial perceptions of AIME may be correct. Both pre-test reports of general AIME and post-exposure reports of AIME correlated positively with learning measured in terms of both recall and inferences. These correlations varied in magnitude and significance (.11 to .42, see appendix). They do not convincingly refute the hypothesized positive relationship between AIME and learning, but they do encourage further testing.

The authors measured two types of perceived self-efficacy: one the PSE in generating inferences from TV or print, the other measured PSE in recalling details. The strongest PSE-AIME correlation found was between inferential PSE and AIME with text (.66). Presumably, inferring information from print would be a relatively challenging situation for children. In moderately challenging situations such as inferring information from TV or recalling details from print, PSE correlated somewhat less strongly with AIME (.22 and .12). While in the easiest task, recall from TV, the relationship between PSE and AIME was negative (-.39). These findings seem to fit well with the hypothesis that the relationship between PSE and AIME is an inverted "u" where more challenging tasks result in rising mental effort, while tasks perceived as extremely easy, like recalling details from TV, result in less mental effort.[3] The other extreme, where the task is seen as difficult enough, and PSE low enough that subjects will become discouraged and relinquish AIME, was not presented in this experiment.

In their second experiment, PDC was manipulated by instructing children to watch or read the story for fun (low PDC), or "to see how much you can learn from it" (high PDC). This manipulation made little difference in the print conditions since children already perceived reading as requiring high levels of AIME. In contrast, AIME scores rose significantly for TV viewers when they thought they were supposed to learn from the program. The PDC manipulation brought AIME up from TV's initially low levels to an apparent ceiling level which was already present in print conditions. This finding is in line with the findings of Kunkel and Kovaric (1983).

As expected, recall of details was not affected by the PDC manipulation. However, inference learning scores were increased significantly by the PDC manipulation in the TV groups. This finding suggests that greater perceived demand led to higher AIME, perhaps by lowering perceived self-efficacy with TV into the range where perceived self -efficacy correlates positively with mental effort. In other words, children weren't so sure that TV was "easy'" when told it was for serious learning and hence invested more mental effort. The outcome, at any rate, was greater inferential learning.

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[3] Perhaps the revised PSE measure which specifically addressed efficacy in inferential learning and recall helped clear up the misperceptions that the Israeli sixth-graders in Salomon's (1981b) study experienced with print media.

Chu (1987)

This study investigated variables related to learning from computer-presented expository text with 27 college students. Learning was measured with five factual and five comprehensive multiple-choice test items on a post test for each text passage provided. Chu cited Salomon (1984) in defining AIME and apparently measured mental effort in the same way. Chu also measured "perceived task difficulty" and "perceived reading ability" on a post test. Although these variables were measured differently than PDC and PSE, their relationships with other variables support Salomon's model as hypothesized. Perceived task difficulty, like PDC in previous studies, correlated negatively with perceived reading ability (-.27). In turn, perceived reading ability, like PSE with books in previous studies, correlated positively with AIME (.42). Perceived task difficulty also correlated positively with AIME "...weakly, but significantly" at .27 and $p<.01$ suggesting that students thought the computer texts were tough enough to warrant extra effort, but not so tough that they relinquished AIME. Finally in a multiple regression analysis, AIME predicted reading performance with a standardized B value of .73. Again, Salomon's model was basically supported.

Krendl (1987)

Krendl proposed using Salomon's model to explain the process by which people learn from media. Her study involved a panel of 611 students in grades three through ten who completed a questionnaire which measured several variables: including demographics and media preferences such as watching TV, using a computer, reading, or writing.

Krendl found that "...in general, the more an activity is preferred, the less difficult it is perceived to be, but the more likely one is to think one will learn from it" (p. 229). This finding corroborates with previous work which shows that individuals are often incorrect in assuming that they learn more from easier media. It reflects the idea that "easier" media (which are more enjoyable) often lead to less AIME, and therefore less learning.

Reiser, Williamson and Suzuki (1988)

The authors pretested and posttested three- and four-year olds on their recognition of letters and numbers before and after watching a "Sesame Street" tape. They cited Salomon in predicting that children would learn more in the conditions where they watched with adults who asked questions and provided feedback on the content (higher AIME condition) than in a control condition in which adults passively watched with the child. "If

Salomon is correct, then children's perceptions regarding the information presented via "Sesame Street" are likely to be affected by the types of tasks adults ask them to perform while viewing the show" (p. 16). Indeed, children in the question-and-feedback condition performed significantly better on the post test than children in the control group (means of 7.1 and 5.4 of 10, respectively). In addition, another group, in which children's attention was merely directed to the program, did not perform significantly better than the control group (mean=6.0), indicating that mere attention to TV's images may not be enough to increase AIME or learning.

These results, however, are not as supportive of Salomon's model as they first appear. The test of learning was referred to as "comprehension," but actually measured recognition. Salomon's model predicts increase in inferential learning as a result of higher AIME. But the very young subjects in this study likely differed from the older subjects involved in previous studies in what would be considered automatic and non-automatic learning processes.

Beentjes (1989)

This study replicated Salomon's original studies with 140 sixth-graders in the Netherlands. Beentjes tested the AIME and PSE instruments and found their levels of consistency to be acceptable. Beentjes questioned the PDC measurements as well, but did not find satisfactory results for the perceived realism scale or the attribution questions for either medium. The only part of the PDC scale which worked as predicted was the question asking why a child understands a book or TV program *well*. The "reverse question, in which the failure to comprehend was to be explained," did not result in higher PDC for TV than print as expected. Beentjes suggests that "all optional alternative explanations that the child gives for the failure to understand a program or book can be interpreted as indicating high PDC" (p. 55). Responses that the child "isn't smart," or "didn't try hard" could also indicate high PDC. These choices, according to Beentjes, implicitly indicate that a certain amount of intelligence is needed to understand the program or book. He also convincingly argues against Salomon's assumption that easiness is equated to realism. He gives the example of a cartoon compared to a detective show. The cartoon, although easier, is perceived as less real.

Beentjes did find, like Salomon, that children invest more mental effort on average in books than in TV. However, the Dutch children, like the Israeli children (Salomon, 1981b), did not have higher PSE for learning from TV rather than books. The small relationships between PSE and AIME (-.01 and -.13) can be accounted for with two possible explanations. First, Beentjes' questionnaire gauged mental effort used in various types of content presented in programs and books rather than media in general. Beentjes suggests an interaction effect between content and medium on AIME and PSE that may have occurred. For example, children may feel more efficacious learning how to make plastic from TV, but would perceive less self efficacy in learning grammar from TV than books. Beentjes also points to a difference in cultures as a possible explanation for the lack of clarity in the correlation between AIME and PSE. Dutch children, like Israeli children, may have had fewer opportunities "to develop the perception that television is a medium from which information can quite easily be obtained" (p. 57).

In sum, this replication seriously challenges the PDC construct, both empirically and theoretically, and encourages further study of the other elements and relationships in Salomon's model. He recommends considering the topic of content, the medium and the interaction of topic and medium in measuring perceived self-efficacy in future studies.

Salomon, Globerson & Guterman (1989)

This study tested the effectiveness of a computer program called "Learning Partner" on increasing learners' reading competence. One of the hypotheses tested was that subjects using "Learning Partner" would invest more mental effort during the reading process. Of interest to the present review is Salomon et al.'s modified measurement of AIME. In this study, the actual concept of mental effort was introduced to students at the beginning of the post test questionnaire. They "...illustrated this by two activities -- to tie one's shoes and to struggle through a math problem -- the former receiving a low position on a mental effort expenditure scale and the latter a high one" (p.623). Three questions followed with Likert-type responses. Reliability of this measure was found to be acceptable.

Furthermore, Salomon et al. reported that effort expenditure "correlated as high as .45 with inference generation after initial ability was partialled out."[4] Apparently, the assumption made here (as was made in reporting learning results for only the "good readers" in Salomon 1981b) is that variability in learning related to AIME can be demonstrated best if the subjects are able to read in the first place. Nonetheless, if very low self-efficacy, be it perceived or actual, leads to little AIME and little learning, Salomon's model is still supported. Unfortunately, these relationships are not reported in this study.

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[4] It is not clear which one of Salomon's studies this statistic results from.

Cennamo, Savenye & Smith (1991)

Cennamo et al. examined learners' preconceptions of interactive video, instructional television and traditional television with 71 undergraduates. They compared the three types of media by their effects on AIME, recall, and inferential learning.

Cennamo et al. were skeptical of Salomon's AIME measure (Cronbach Alpha of .55 in this study), but did find significant correlations between AIME and inferential learning (.27). They also found an unexpected correlation between AIME and recall of .33. One of the possible explanations given for the AIME-recall correlation was that the instructional materials used in this study provided practice questions which encouraged factual recall, not inferential learning.

The role of PDC, referred to as preconceptions of difficulty in this study, was again seriously challenged. Based on earlier studies, Cennamo et al. expected to find that learners would invest the least effort in media perceived as the least demanding, "easiest." They found the opposite. For example, subjects perceived interactive video as the least difficult of the three media to learn from, but also perceived it as requiring more mental effort. The undergraduate education majors in this study, as opposed to small children in other studies, "...may be aware that an "easy" lesson is not necessarily easy to "learn from""(p. 13). However, perceived self-efficacy in learning was not examined in this study.

Bordeaux & Lange (1991)

This study used interviews with parents and children to assess AIME with children's home viewing as opposed to laboratory activity.[5] The focus of their study was how much mental effort was reported for different types of television programs (i.e., children or adult shows) among different age groups. For example, they expected, and found, that AIME for child-oriented programming dropped with increasing age.

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[5] Bordeaux and Lange's specifically addressed of the questionable AIME construct. Computation of AIME scores, developed from Salomon's (1984) questions, resulted in Cronbach Alphas of .80 for child-type programs and .73 for adult-type programs. Forty-eight of the 116 subjects were interviewed twice with test-retest Pearson correlations of .88, .90, and .92 for child-, adult-, and total-program AIME scores.

The authors expected that the AIME scores would be low "...both for highly unfamiliar and highly familiar programs, but high for moderately familiar programs" (p. 629). Although their focus was programs and not media, this expectation parallels the proposed inverted "u" relationship between PSE and AIME. However, familiarity explained little of the variance in AIME and the results did not support the predictions which were partly based on the concepts of self-efficacy and PDC. Perhaps familiarity did not range from very low to very high.

Mevarech, Shir, & Moshovitz-Hadar (1992)

This study tested the extent to which a two-media educational environment (i.e., video combined with computers) would affect achievement more than either one of its components alone. "Mindfulness" was measured at four points during the study of learning achievement in geometry. The self-report mindfulness measure was derived from Salomon and Globerson (1987). It yielded a reliability coefficient of .80. Although the relationship between mindfulness and math achievement was not made explicit, a comparison of mindfulness levels at four points in this study showed a steady increase for computer-only and video-only groups, relatively stable levels across time for the no-media group, and a pattern of rising mindfulness with sharp decline at the last measure for the two-media group. Perhaps over the course of the study, the two-media condition became perceived as too difficult (very high PDC/very low PSE), causing the drop in mindfulness (AIME) at the end. This study draws attention to the importance of length of exposure in examining AIME.

Sherman (1993)

Sherman experimented with various combinations of narrator type and on-screen character type in a junior high school-level science film. He studied the effects on achievement, AIME and attitude. Sherman concluded that even though he showed the same visual images to all subjects and manipulated only aspects of the voice-over, "...the visual images corresponding to the information may have meant something different to the viewers depending on the version [of narration, i.e., story format, same-age narrator, first-person narrator]" (p.7). In other words, differences in learning, AIME and attitude in these findings were likely due to different viewer perceptions. A significant correlation was found between AIME and post-test performance (.24, p<.01).[6]

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[6] Performance included recall and comprehension measures.

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Beentjes & van der Voort (1993)

Beentjes and van der Voort designed this study to test three hypotheses based on Salomon's model:

> ...(a) children invest more mental effort in processing print stories compared to television stories; (b) story recall is not affected by the medium through which the story is presented; and (c) print stories lead to more inferential learning than television stories. (p. 191)

The authors modified Salomon's methodology in several key ways. First, the experiment was conducted with fourth-graders (n=44) and sixth graders (n=44). Second, they provided two stories, one print and one video, to each child with a counter-balanced design so that the 2X2 conditions of media (print or TV) and story (story A or B) were distributed evenly. Furthermore, they used an elaborate five-step design to develop equivalent print versions of TV stories. Third, they not only measured retention and inference immediately following exposure, but they also used a delayed instrument to measure retention two to three weeks later. Fourth, they assessed AIME in two ways: using Salomon's self-report method after exposure, and using a secondary-task measure *during* reading and viewing.

Regarding the secondary-task measure, children were instructed as follows: "the story is more important than the bleeps, so read/watch the story and whenever you hear a bleep you react as soon as possible" (p. 195). Twenty bleeps occurred during the 10-13 minute exposure. Children were equipped with headphones to shut out outside noise. During reading/viewing the experimenter was seated diagonally behind the child.

Three of four of Salomon's AIME questions were used. The one using the word "concentrate" was dropped because Dutch children are not accustomed to the term. Cronbach Alphas ranged from .60 to .64. Correlations between the two AIME measures were low, mostly negative and mostly insignificant.

All three hypotheses were more or less rejected. Children's mental effort was higher in reading than for watching TV, but only according to the AIME measure. Reaction-time data rejected this hypothesis. Recall from television and print versions of a story was only equal on the immediate retention tests but not on the delayed retention tests where viewer scores were higher than reader scores. Finally, performance on the inference test for TV viewers was higher than for readers and "considerably" higher than for below-average readers.

The authors cite several possible reasons for the contradictions. They felt that Salomon's print version of stories in previous studies may have been too "rich," offering better information in some way and leading to the resulting increase in inferential learning for print. Also criticized was Salomon's test for learning only immediately after exposure and for only one story and one age group. Furthermore, they question the AIME measurement in stating that Salomon's hypotheses "...may hold true only if a retrospective measure is used" (p. 202).

However, it is arguable whether the findings in this study are comparable to previous studies. Beentjes and van der Voort "...did not investigate children's perceptions of television and print" (p. 193). If the secondary task measurement method changed children's perceptions by its stressful and demanding nature, it may have made TV viewing more demanding and reading simply too tough, which, by shifting positions on the inverted "u" of AIME, may well have led to opposite results.

Mevarech (1993)

This study was designed to examine the effects of computer-assisted instruction in individualized (one child to a computer) and cooperative (a pair of children to a computer) situations on AIME, math achievement and social acceptance of high and low achievers. AIME was measured according to Salomon's model at the beginning, middle, and end of the study which lasted several months.[7]

No correlation was given for the relationship of AIME and achievement. However, analyses of AIME showed that "low achievers" who worked individually gradually decreased AIME over time, while the low achievers who worked with partners gradually increased AIME. "High achievers" improved at approximately the same rate in both conditions. Mevarech suggests that the difference for low achievers may be due to the perceptions of accountability and attentiveness that may have been fostered by the presence of a partner. Unfortunately, these perceptions were not measured in terms of PSE or PDC.

Verhagen & Breman (1995)

Verhagen et al. studied instructional format and segment length in interactive video programs in experiments with university freshmen in the Netherlands. One of Verhagen and Breman's objectives was to examine the relationships between PSE, PDC, AIME and learning performance. Verhagen and Breman, however, only used one post-test question to measure AIME, one pre-test question to measure PSE, and one question asked twice (pre- and post-test) to measure PDC. Learning was measured by comparing scores on two multiple-choice tests (pre- and post-tests) of factual knowledge.

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[7] The self-report measure yielded a Cronbach Alpha of .70, but "Using a Cronbach procedure for inferring the reliability coefficient by doubling the number of items provides an alpha coefficient of .825" (p. 454). Mevarech suggests that any limitation on the self-report AIME measure "...may apply more to automatic processes which by their very nature are unavailable to introspection than to intentional control processes" (p.461). Indeed, by Salomon's original definition, AIME is an indicator of *non*-automatic processes.

Verhagen and Breman found significant ($p<.001$) positive correlations between AIME and pre-test PDC (.39), post-test PDC (.48), and PSE (.68). These results are in line with Salomon's early findings with print. However, "no significant relationships were discovered" between AIME and test performance (p.15). This result is consistent with Salomon's findings regarding AIME and factual recall, as should have been expected since factual knowledge was measured. Nonetheless, Verhagen and Breman's measures of these four variables significantly differ from earlier measures and operations. Therefore, this data on its own cannot be used in strong support of Salomon's model, but should be taken into consideration in conjunction with other studies.

Conclusions

Of the relationships between variables that this review focused on, one seems most supported -- the relationship between AIME and learning. This relationship seems to be clearest in studies in which AIME measurement methods were least obtrusive and learning was measured in terms of inferences. The correlation was not clear in studies in which individual ability was low, as when children classified as poor readers were tested on learning from texts, or when subjects were asked to read for ten to thirteen minutes and, at the same time, respond to twenty bleeps. Studies measuring learning in terms of recall or recognition had mixed results, but AIME's hypothesized correlation with inferential learning was generally supported. This support for the expected correlation between AIME and learning also helps demonstrate the validity of the AIME measure.

Reliability of Salomon's AIME measure was found to be acceptable. This is not to say that the measure cannot be improved, but alternate measures introduced so far do not appear to be suitable to measure mental effort with media consistent with natural conditions. This is a vital aspect of measurement if research results are to be applied to learning outside the laboratory.

Although the idea of perceived demand characteristic is central to Salomon's explanations of how different individuals in different situations vary in their perceptions of media, research to this point fails to offer a suitable operational definition of PDC.[8] Perhaps PDC is too global a construct to be useful in models of the specific processes which lead to learning from media. Measuring aspects of (or closely related to) perceived demand such as perceived self-efficacy may be a more productive approach to determining the antecedents of AIME.[9]

So far, research on the relationship between PSE and AIME has yielded results which do not refute the hypothesized curvilinear correlation. However, these findings are often best explained in a post-hoc manner. Furthermore, explanations of findings are hardly parsimonious. Salomon himself normally reports the findings in terms of two separate correlations rather than one curvilinear one. For example, he (1984) reports a positive correlation between PSE and AIME for "demanding" material, but a negative correlation when "easy" material is to be processed (p.649). Nonetheless, the relationship between PSE and AIME is certainly worthy of further investigation. Future studies clearly proposing the curvilinear relationship and experimenting with situations that span the entire range of PSE among subjects will help clarify the relationship.

Further research using Salomon's model of learning from media are certainly in order. Questions still remain regarding the curvilinear relationship between perceived self-efficacy and the amount of invested mental effort. Future research should also seek to identify other factors which influence AIME. Theoretically, the best place to begin looking for AIME's antecedents is in the area of individual perceptions of various media and content. For example, new communication technology, compared to television and traditional print, may elicit the widest range of PSE among individuals and therefore may be a productive starting point for further investigation of the PSE-AIME relationship. In addition, future investigators should pay close attention to the specific type of learning affected by AIME. Understanding these relationships will help us understand learning from media.

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[8] With the exception of Salomon's introductory work.

[9] This type of inquiry can be found in organizational behavior literature dealing with factors affecting motivation and effort (e.g., Tang, 1990; Bandura & Cervone, 1986). Bandura and Cervone (1986) found that "motivation is perhaps best maintained by a strong sense of self-efficacy to withstand failure, coupled with some uncertainty..."(p.110). They explained how increases in PSE lead to more motivation and effort, but cited Salomon (1984) in showing how greater PSE also may lead to decreases in effort, for many of their subjects became "overcomplacent" and relinquished motivation and effort.

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APPENDIX

Correlations between AIME and Learning

STUDY	MEDIUM	CORRELATION/ COMPARISON	LEARNING MEASURE	PLACE	NOTES
Salomon (1981a)	print	r=.64 p<.01	achievement (inferential learning and recognition)	USA	124 6th graders
	TV	r=.67 p<.01			
Salomon (1981b)	print	r=.58 *	factual recognition and inferences? (not clear)	Israel	Statistics limited to certain subjects - - "those for whom learning outcomes were the good readers..." (p. 97).
	TV	r=.68 *			
Kunkel & Kovaric (1983)		mean learning scores	learning (recall and comprehension)	USA	85 college students Based on significant (p < .001) differences of mean AIME scores in pre-test survey (4.35/10 for PBS vs. 2.98/10 for Comm TV) and in post-test self-report measure (PBS=5.5, Comm TV=3.14). See study for further details on manipulations of AIME and interaction effects.
	PBS TV	17.50/20 Std. Dev.=2.62			
	commercial TV	16.79/20 Std. Dev. =2.65			
Salomon (1984)	print	r=.24 not significant	recognition	USA	124 6th graders from same data as (1981a)
	print	r=.72 p<.01	inferences		
	TV	r=.04 not significant	recognition		
	TV	r=.69 p<.01	inferences		
Salomon & Leigh (1984, first experiment)	print (general AIME)	r=.24 *	recall	Israel	64 6th graders
	print (post-exposure AIME)	r=.28 *	recall		
	print (general)	r=.27 *	inferences		
	print (post-exp.)	r=.42 p<.05	inferences		
	TV (general)	r=.31 *	recall		
	TV (post-exp)	r=.11 *	recall		
	TV (general)	r=.38 p<.05	inferences		
	TV (post-exp)	r=.13 *	inferences		
Chu (1987)	Computer-presented text	standardized B = .73 F=2.19	factual and comprehensive multiple-choice measure	USA	27 college students (graduates and undergrads)
Reiser et al. (1988)	TV "Sesame Street"	compared adjusted posttest means "using pretest scores as covariate."	recognition of letters and numbers (delayed post-test)	USA	95 three- and four-year olds See study for details of AIME manipulation.
	AIME condition	7.1/10			
	Control condition	5.4/10			
Salomon et al. (1989)	**	r= "as high as .45" *	inference generation	**	Correlation figured after initial ability was partialled out.
Cennamo et al. (1991)	Interactive video, instructional TV and traditional TV	not separated by media for these stats.		USA	71 undergraduate students
		r=.27 p=.012	inferential learning		
		r=.33 p<.01	recall		
Sherman (1993)	Junior high school-level science film	r=.24 p<.01	recall and comprehension	USA	441 7th graders Varied voiceover-character relationship in film
Beentjes & van der Voort (1993)		compared means		Netherlands	88 total 44 4th graders 44 6th graders
	AIME for print over TV	F (1,84) = 23.51 p<.001	AIME		
	Recall for TV over print	F (1,84) = 5.05 p<.05	recall		
	Inference scores for TV over print	F (1,84) = 28.40 p<.001	inferences		
Verhagen & Breman (1995)	Interactive video programs	"no significant relationships" (p. 15)	factual knowledge (multiple choice)	Netherlands	73 university freshmen Conclusion based on a Kruskal-Wallis one-way analysis of variance. See study (p.15) for details.

* indicates that no p was given

**not clear which study this data results from

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SITUATIONAL INFLUENCE OF POLITICAL INVOLVEMENT ON INFORMATION SEEKING: A FIELD EXPERIMENT

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SITUATIONAL INFLUENCE OF POLITICAL INVOLVEMENT ON INFORMATION SEEKING: A FIELD EXPERIMENT

ABSTRACT

Political involvement is conceptualized as a situational variable and evaluated experimentally. Each subject was included in a 30-minute current events discussion in one month, and a control condition in another month. This discussion stimulated subjects to acquire more political news than they did in the control condition, and to seek information via newspapers. These findings support a model of political involvement as a condition that varies over time, not simply a stable individual difference.

Political involvement, or a general engagement with politics and public affairs, is often used to explain why people read newspapers, watch television news, and talk to others about politics. This paper will focus on the situational component of involvement and its potential to stimulate political communication behavior. We will explore whether political involvement, which usually is assumed to be a matter of deep-seated personal characteristics, can be temporarily stimulated by a minor social interaction. Then, in a within-subjects field experiment, we will investigate the effect of a situational manipulation of involvement -- via interpersonal discussion -- on information seeking in the media and reception of political news.

POLITICAL INVOLVEMENT

Dispositional involvement. Early political scholars defined involvement as both interest in politics in general, and interest in specific election campaigns in particular (Lazarsfeld, Berelson and Gaudet 1944). This definition was refined in the University of Michigan's national election studies (Eulau and Schneider 1956; Campbell, Converse, Miller and Stokes 1960). These scholars considered involvement a psychological trait, a person's deep-seated and enduring sense of political efficacy and citizen duty, as well as concern about a particular election campaign and its outcome. Many political involvement studies follow these definitions; some conceptualize involvement as both general and specific political interest (Pettey 1988; Faber, Tims and Schmitt 1993), while others focus on concern with a specific election (Atkin, Galloway and Nayman 1976; Pederson 1978; Morley 1984).

Income and education are typical of the stable personal characteristics that predict political involvement as it is tapped with survey questions (Verba and Nie 1972; Conway 1985). Indeed, in each of the studies cited above, involvement was considered a predisposition, measured to account for individual differences in political interest.

Situational involvement.[1] Social psychologists have amassed a great deal of empirical evidence that behavior is less a function of differences in personality, or stable individual dispositions, and more related to differences between situations -- the social context in which individuals find themselves (Ross and Nisbett 1991). Political communication has been found to be influenced by at least two situational factors: (1) characteristics of specific elections; and (2) social participation in political discussions.

Rothschild and Ray (1974) used differences between elections in a study of advertising effects. Involvement was operationalized by type of election: Presidential (high involvement) and state and local races (lower involvement). They found effects on voting intention due to repetition of an advertisement in the low involvement elections, but for high involvement offices advertisement repetition made little difference.

Milbrath and Goel (1977) cite correlational evidence indicating that participation in political discussions may stimulate political involvement. In a panel study, Tan (1980) inferred a causal relationship between discussion and newspaper use, suggesting that discussion may be a situational factor that precipitates involvement and information seeking. Social participation theorists also suggest that interpersonal interaction, where politics is discussed, can stimulate political interest (Olsen 1972; Erbe 1964).

Political behavior that reflects structural factors such as income and education, or deep-seated attitudes, is subject to little change. But when involvement is stimulated by a temporary social situation, political activity may increase as well (Atkin 1972). Olsen (p. 318) argued that social context may elicit political behaviors above one's habitual level: "People caught in traditional patterns [of political participation] must be mobilized through involvement in new social contexts if they are to become politically active" (p. 318). Erbe (1964) also noted that "interaction with people" stimulates interest and curiosity with the topic at hand.

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[1] Situational political involvement refers specifically to social situations that stimulate involvement. This is distinct from research that examines message involvement (Petty and Cacioppo 1979, 1984; Chaiken 1980; Krugman 1965), including studies that manipulate involvement with political messages (Roser and Thompson 1995; Lo 1994; Cundy 1989; Bybee 1978).

INFORMATION SEEKING

Situational involvement in politics activates a need for political or public affairs information (Chaffee and McLeod 1973), and this need drives a motivated information search (McCombs 1972). The assumption that individuals can be active information seekers is consistent with the uses and gratifications research tradition (Katz, Gurevitch and Haas 1973; Blumler and Katz 1974). Active seeking moves beyond passive, habitual information intake; it is said to be purposeful (Atkin 1973), deliberate (Gantz, Fitzmaurice and Fink 1991), and a result of effort (Donohew and Tipton 1973).

Information-seeking channels. Research indicates that motivated information seekers turn to newspapers to learn about politics (McLeod and Becker 1981; Culbertson and Stempel 1986). Pettey (1988) showed that variance in political knowledge is explained by information seeking in newspapers, but not on television. Tan (1980) also concludes that when people need to be informed about politics, they seek information in newspapers, but not on television.

Atkin (1973) examined the relationship between expenditure of effort (to seek information) and media use. He suggested that newspapers require more effort to use than television, and are thus more costly. However, as need for information increases, people turn to more costly sources if they expect a greater informational benefit. Specific situations can stimulate information searching in print media. In one study, women who were likely to have an abortion sought more information from print sources, compared to women who were not; the latter got their information from a variety of channels (Atkin 1973). Print sources become more valuable as utility increases. Chew (1994) found that respondents with more diverse information needs extend their search beyond television, and turn to newspapers and magazines to satisfy those needs.

To be sure, most people say they habitually rely on television for political information (Roper 1983), and people do learn about political issues from watching television news (Chaffee and Yang 1990). Gantz et al. (1991) reported that most respondents wanting to learn about the 1986 Reagan-Gorbachev summit turned to television news, for example.

Discussion about politics can be considered a supplemental information source (Chaffee 1982). Studies on the diffusion of news (Rosengren 1973) indicate that people seek information from others when the event is sudden and of crisis proportion, such as the assassination of a political leader or a natural disaster. Ordinarily, though, people talk about politics less for informational and learning purposes, and more to enjoy themselves or to persuade others to adopt similar political views (Rubin, Perse and Barbato 1988; Barbato 1986).

Information-seeking measures. A standard measure of information seeking is frequency of media news exposure, measured by asking how often the person reads a daily newspaper or watches television news about government and politics (McLeod and McDonald 1985; Culbertson and Stempel 1986; Tan 1980; Gantz et al. 1991). A more motivated aspect of information-seeking, specific to news, is assessed by asking people how much attention they pay to television (or, separately, newspaper or radio) stories about politics or public affairs. This measure of information seeking is especially important when examining television use (Chaffee and Schleuder 1986). For television news, “attention” questions more strongly predict learning than does frequency of mere exposure, probably because much exposure to television is unmotivated, often accompanied by other activities. Asking about "attention" may better capture the active component inherent in information seeking.

Information seeking may also be assessed by recall of media content, or by measuring an individual’s knowledge of particular media messages. These tests of reception include newspaper or television campaign items, and political advertisements. Martinelli and Chaffee (1995) used news recall to detect active information seeking, for instance. Price and Zaller (1993) label this concept "news reception." According to these researchers, reception indicates who actually "gets the news": it requires "attending to, comprehending and retaining news" (p. 134). While news reception may not be specific to channel, it does map variance in the general activity of news communication, and is a more reliable indicator than is self-reported media use (see also Gandy et al. 1987).

Seeking information via interpersonal discussion, as measured by self-reports, is correlated with other information-seeking behaviors (Eulau et al. 1979; Tan 1980; Robinson and Levy, 1986; Kinsey and Chaffee 1994). Berkowitz and Pritchard (1989) examined whether people use interpersonal and media channels to seek information; they found no effect on knowledge for interpersonal channels, however.

SITUATIONAL INVOLVEMENT AND EXPERIMENTAL EFFECTS

In studies that examine the relationship between political involvement and information seeking, involvement almost invariably has been a measured dispositional variable. Its inferred effect is thus confounded with many correlates, such as education or media use itself. Conceptualizing involvement as "situational," on the other hand, implies that it is subject to experimental manipulation, separated from potential confounding factors. The two social situations that scholars have shown experimentally affect involvement are general election characteristics (Rothschild and Ray 1974) and group discussion (Atkin 1972). The manifest importance of different offices is an attribute of the macroscopic situation, while a discussion about politics is a "microscopic situation" that is subject to social and experimental change, and is the situation we use in this study. Involvement has been manipulated in other communication effects studies (Bybee 1978; Roser and Thompson 1995), but the manipulations involve personal relevance of a message or issue, not an engagement with politics outside of self interest.

Research questions. Can involvement in politics be stimulated by a social situation (in contrast to being measured by enduring individual differences)? Can this situational stimulation result from a single discussion about politics without any instruction or occasion for further action? And will this involvement lead to information seeking and news reception? This set of questions will be addressed by comparing the media use and related behaviors of an individual after he or she (1) has participated in a recent discussion about politics, and (2) has not participated in such a discussion.

METHOD

This study is a within-subjects field experiment, in which each subject, in effect, serves as his or her own control. Involvement is manipulated by participation in a discussion about politics -- in a natural setting -- in one of two time periods. The full experimental design is outlined in Figure 1. Subjects were randomly assigned to either a discussion or control condition in one month, and then to the other condition in the following month. During the period a subject was in the control condition there was no contact with the experimenter; that is, subjects were simply not asked to participate in a discussion about politics, nor to do anything else. The study was conducted over a two-month period in a counterbalanced design, so that each subject eventually was in both the experimental condition and the control condition and thus served as his or her own control. Measures were gathered at three time points, so there are baseline data (Time 1) and then dependent measures for the experimental conditions after each time period (Times 3 and 5).

The data were collected at a mid-sized, residential university in California in the fall of 1994. The first time period coincided with a California election campaign, which included races for governor and U.S. Senator and several controversial referenda. The

Figure 1

Experimental Design

	T-1 (10/10)	T-2 (10/31)	T-3 (11/9)	T-4 (11/28)	T-5 (12/5)
Group 1	Survey I	Discussion I (treatment)	Survey II	(control)	Survey III
Group 2	Survey I	(control)	Survey II	Discussion II (treatment)	Survey III

second time period was post-election, and the news topics were quite different. Subjects (N = 121) were students in Mass Communication and Society, an introductory course.

Experimental Procedure. The class met in a large lecture hall three times per week; students also met in 12 one-hour discussion sections once a week. The survey questionnaires were administered in three of the lectures during the quarter; the experimental conditions were run once in each of the 12 discussion sections. The principal investigator of this study was the head teaching assistant for the course and administered all surveys; she also led the discussions that constituted the experimental manipulation. These activities were not connected, however. Six of the 12 discussion sections were randomly assigned to Group 1, the other six to Group 2. Subjects in Group 1 participated in a discussion about politics before the November 8, 1994 California election; subjects in Group 2 participated in a discussion about politics after the election. The control condition, i.e. no discussion, was thus assigned to Group 2 in the pre-election period, and to Group 1 in the later period. The procedure follows:

Time-1 (October 10): Survey I. A questionnaire, entitled "Media Survey," was distributed during the large lecture class. It was explained that, as a class project, the class was going to track its media behavior as it related to the ongoing election campaign. Students were told participation was voluntary, and that it would not affect their grade, but it would be a useful experience to help them understand the relationship between the mass media and the electorate as audience (a topic covered in the course). They were told that results of the survey would be tabulated and presented in a lecture at the end of the quarter. (This lecture was given). The questionnaire included items measuring information-seeking behavior: news reception, news exposure, news attention, and interpersonal communication, as described later here.

Time-2 (Week of October 31): Experiment Phase I. Six sections of 13 - 18 students each comprised Group 1. In each section students discussed politics during one weekly meeting. Each section leader introduced the head teaching assistant (i.e. the experimenter), and explained that she would be running that day's discussion. The experimenter explained that she was a Ph.D. student, studying the relationship between the mass media and the election process. She reminded them of the upcoming election and pointed to the board, which listed six items on the ballot: (1) Pete Wilson v. Kathleen Brown for Governor; (2) Dianne Feinstein v. Michael Huffington for U.S. Senator; (3) Health care (an initiative for a state-run, single-payer health care system); (4) Illegal immigration (an initiative to prohibit public social services for illegal immigrants); (5) Smoking (an initiative to relax smoking restrictions in public); and (6) Three strikes (an initiative for mandatory life sentences for felons on their third conviction).

The experimenter then told the students, "I want us all to participate in a group discussion about these -- or any other -- topics concerning politics." The list was provided as a reminder of election-related topics, but students were encouraged to discuss anything related to the election or politics. She explained that she was more interested in having a class discussion about politics than on these items in particular. She told the class she was tape-recording the discussion so she could later content analyze it, and that participation was voluntary and would not be graded. Excluding introductory remarks and unrelated class business, each discussion lasted approximately 30 minutes.

Time-3 (November 9): Survey II. The second questionnaire was distributed to all subjects before lecture began, which was the day after the election. Items similar to those in Survey I remeasured information-seeking behavior and news reception.

Time-4 (Week of Nov. 28): Experiment Phase II. The other six sections, ranging from 10 to 16 students each, which were randomly assigned to Group 2 and which had been the control group during Phase I, discussed politics at their weekly meeting in this post-election period. Subjects in Group 1 now constituted the control group, and did not have a class discussion about politics. (The control topic of discussion was simply the regularly scheduled lesson, led by the usual teaching assistant as had been the case for Group 2 the previous month.) In the treatment sections, the experimenter repeated the procedure used when Group 1 had been the treatment group. However, she changed the topics listed on the board to reflect current political news. Topics were: (1) Prayer in schools (proposed by new Republican leaders in Congress); (2) Cuts in federal welfare (proposed by new Republican leaders in Congress); (3) Sen. Jesse Helms's attacks on President Clinton (criticizing Clinton's ability to be commander-in-chief); and (4) GATT (treaty expansion which was up for vote in Congress during this time).

Time-5 (December 5): Survey III. The third questionnaire was handed out to all subjects in lecture. It again measured information-seeking behavior and news reception with items similar to the Survey I and Survey II measures.

One week later in lecture, marginal results of the questionnaire data were presented with an explanation of the relationship of the class project to the research literature on media use and political involvement.

Independent variables. Political involvement was manipulated in this experiment by creating the temporary situation in which subjects participated in a half-hour discussion about politics in general. Several studies, summarized by Milbrath and Goel (1977, p. 36) suggest that persons participating in political discussions are more likely than nondiscussants to become more interested and active in the political process. This manipulation was designed to create a situation that might generate in the students a sense of political involvement. There was, however, no assignment to seek information, nor any suggestion that there would be any further discussion of current politics. This was, then, a mild manipulation, in contrast to other studies that manipulate involvement by altering the personal relevance of a message (e.g. percent of course grade) or by requiring subjects to engage in a specific task.

Frequency of topic discussion was measured by adding the number of times a topic was mentioned during the session and dividing that sum by the total number of times any student spoke about politics during the session. Content analysis showed that during the pre-election sessions, more than half of the discussion (53 percent) was about three topics that reflected current political news: (1) the referendum to cut social services for illegal immigrants (23 percent); (2) the referendum for a single-payer health care system (17 percent); and (3) the U.S. Senate race between Dianne Feinstein and Michael Huffington (13 percent). Other pre-election topics included general discussion of campaigns.

During the post-election treatment condition, 80 percent of the discussion concerned just three current news topics: prayer in public schools (47 percent); GATT (19 percent), and welfare reform (14 percent). Other post-election topics included new Republican leaders.

During the discussion (treatment) sessions, subjects spoke on a voluntary basis and were not graded or otherwise required to talk. Participation for purposes of this experiment meant being in the room in which the discussion was taking place -- some subjects talked, while others simply listened. In this way, all subjects were considered a part of the situation, although not necessarily of the discussion.

Control condition. The control condition provided a baseline to assess the effectiveness of the political involvement manipulation. Because this experiment used a within-subjects design, each subject not only received the treatment (i.e., participated in the discussion), but also "received" the control condition. This made it possible to compare the effects of each person being in the treatment condition with the effects on that same person when in the control condition, eliminating individual differences in enduring political involvement, media use habits, and other extraneous factors from the test of the main proposition. Topics during the control meetings reflected the weekly class lecture material and did not contain information being discussed in the treatment sessions.

News reception measures. Following Price and Zaller (1993), *news reception* was measured by recall of specific news content. For Survey I and Survey II, a total of 28 items, shown in the Appendix, were developed to tap recall of California 1994 election coverage in the mass media. This included knowledge of (1) candidate issue positions, (2) candidate personal information, (3) general election news, (4) and information contained in television attack ads. These items were divided into 14 pairs that dealt with similar current political information, and then one question from each pair was randomly assigned to either Survey I or Survey II. This procedure was designed to maximize comparability of these two waves of measurement in terms of the overall mean, variance, normality, and distribution of content. (This comparability could not be achieved for Survey III as well, since it was impossible to anticipate at Time 1 what the post-election news would be about). For example, items used to assess knowledge of the different kinds of election coverage include: (1) "Who sponsored a bill to create national parks in the California desert?" (2) "Who offered to debate only on a PBS TV channel in Sacramento?" (3) "Who was accused in TV ads of being 'a career politician' who rides to work in a limousine?" and (4) "Who is married to an ordained minister?" The closed-ended choices were the last names of the candidates running for California Governor and U.S. Senator for California: "Brown," "Feinstein," "Huffington," and "Wilson." A "don't know" option was also included to discourage random guesses. These indices were summed. Because the distributions differed somewhat from survey to survey, these raw scores were converted to standard scores within each wave so their means and variances would be equivalent for purposes of the experiment.

The treatment sessions were audio-tape recorded and transcribed. The transcripts were content analyzed by topic, enabling deletion from the recall items on the questionnaires any topics that had been discussed during any treatment session. Before data analysis, two items were dropped from the Survey II index because they had been discussed during the Group 1 treatment discussion. Any changes in this dependent variable should be influenced by extra-curricular information-seeking behavior, and not by direct classroom learning. To ensure that Survey I and Survey II would remain comparable, two parallel items were dropped from the Survey I index. The overall reliability of the Survey I news reception index (Cronbach's alpha) was .91. Reliability of the Survey II index was .87.

News reception items for Survey III (shown in the Appendix) were based on post-election political news, such as (1) "Who is the next U.S. House of Representatives minority leader?" (2) "Who once said he would support GATT if there were a cut in the capital gains tax?" and (3) "What has the United Nations decided to do with Bosnia?" Four response choices were also given for these items. This index was summed and standardized to form the Survey III measure of news reception. Three items were dropped from the index because they had been covered in a Group 2 treatment discussion.

Reliability for the Survey III reception index was lower than for the first two surveys (Cronbach's alpha = .74). The decreased reliability may be due to fewer items comprising the index (nine, compared to 12 for the first two scales), or it may be due to the heterogeneity of the test, in that the Survey I and II items dealt mainly with the upcoming election. Test items were based directly on news from metropolitan daily newspapers and evening television news broadcasts. Items would therefore appear difficult if a subject had not been attending to and comprehending current news. Items likely seemed more difficult during Survey III, a month after the election, because news about politics generally decreases after an election. Another possibility for the lower reliability could be the difference in response scale for Survey III. All response choices for Survey I and Survey II media reception were the same: the names of four candidates. The Survey III index contained several different response choices because less political news at that time focused on different people. While these differences in response choices could have decreased internal consistency in the Survey III test, it is unlikely that they reduced validity. A subject could score consistently well -- or consistently poorly -- on the more similar measures of Surveys I and II simply because a given person might have been relatively "expert" regarding the particular candidates who comprised the response set for those two tests.

Newspaper exposure. On each of the three questionnaires, exposure was measured by asking: "About how many days in the past week have you read a newspaper other than [name of school newspaper]?" This was measured on an 8-point scale, ranging from 0 to 7 days per week.

Newspaper attention. This was measured on all three questionnaires with a 5-point scale, in which 1 meant "no attention" and 5 meant "close attention." On Surveys I and II, the question read, "How much attention are you paying to newspaper articles about the election campaign?" Consistent with the change in news context, the Survey III item was, "How much attention have you paid in the past week to newspaper articles about politics?"

Exposure to television news. On all three questionnaires, items read: "About how many days in the past week have you watched a national TV news show?" A separate item was included about exposure to local TV news. Responses were recorded on an 8-point scale ranging from 0 to 7 days.

Attention to television political news. This was measured on all three questionnaires with a 5-point scale, in which 1 was labeled "no attention" and 5 "close attention." On Surveys I and II, the question read, "How much attention are you paying to television news about the election campaign?" The Survey III item was, "How much attention have you paid in the past week to television news about politics?"

Frequency of political discussion. On Surveys I and II, the item read: "In the past week, how many times do you estimate you have talked to other students or family members about this year's election?" On Survey III, the item was: "In the past week, how many times do you estimate you have talked to other students or family members about current politics?" This was measured using an 11-point scale ranging from 0 to 10 (or more) times in the past week.

The mean and standard deviation for each dependent variable (for each group and on each survey) are shown in Table 1.

HYPOTHESIS AND PLAN FOR ANALYSIS

The working assumption of this research is that political involvement, defined as interest in politics, can be stimulated by a situational experience. In this study, the situation is the discussion in class about politics. Because prior literature on the experimental manipulation of political involvement is not a clear guide, the research hypothesis advanced here is general:

> *When people become involved in politics because of a situational experience, they will seek more political information than at other times.*

This experiment provides many tests of this proposition.

Research generally presumes that information seeking is evidence of a condition of political involvement (Atkin et al. 1976; Perloff 1985; Verba and Nie 1972). The design of this study enables us to compare the same person's information-seeking behavior when he or she is situationally involved, and when he or she is not.

This study uses multiple measures for information seeking behavior. This will permit us to compare the news reception index with more traditional self-report measures, and to compare information seeking via various channels.

The central empirical test in this study is the examination of change scores on the media use dependent variables in both the treatment and control conditions. Because there were three points of measurement, and because each person was in both the treatment and control conditions, it is possible to calculate the change in media use from pretest to posttest when a person was in the treatment condition and when he or she was in the control condition. These short-term changes can then be compared to one another. The hypothesis of this research can be tested in two ways: whether the change in media use was significantly greater when a person was in the treatment condition as compared to when he or she was in the control condition, and, at a given time, whether those in the treatment (discussion) condition subsequently sought and received more information than did those in the control condition. Before computing change scores, all dependent measures were standardized within times so that comparisons could be drawn that are not confounded by different variances in a given dependent variable at different times.

The first step is to examine the media use dependent measures using between-groups analysis. This method permits examination of differences between treatment and control groups on each dependent variable at each of the three points in time. This in effect provides a replication of the experiment: In the discussion manipulation that occurred before the election, Group 1 was the treatment group and Group 2 was the control. In the discussion after the election, Group 2 was the treatment group and Group 1 was the control. The robustness of the experimental effect can be evaluated by first viewing these two comparisons as separate replications.

Data Administration. Data were matched for each of the three surveys by assigning an identification number for each subject. Attendance was taken during the treatment sessions. Only students who completed all three questionnaires and attended their section's treatment session were included in the analysis. This resulted in some attrition; for Survey I (N = 161), for Survey II (N = 152), and for Survey III (N = 142). Of the 89 subjects randomly assigned to Group 1, 80 attended the treatment session. Of the 76 subjects randomly assigned to Group 2, 65 attended the treatment session. And, 24 of those who attended treatment sessions did not complete one of the three questionnaires. Therefore, the final number of subjects included for data analysis (i.e. those for whom a complete record is available) was 121.

RESULTS

Analyses Between Groups. Table 1 shows between-group differences in standard scores on all dependent variables for both the pre-election and the post-election experimental manipulations. The data in the Survey I column indicate baseline measures for all subjects. Half the discussion sections were randomly assigned to Group 1, the other half to Group 2. As expected, there were no significant differences between these groups on mean responses to any media dependent variable at Time 1. The tests of changes in each time period are conservative tests of the research hypothesis, since they do not control for within-subjects habits of political communication; those individual differences are effectively removed from the within-subjects analyses reported below.

Examining the results of Surveys II and III, subjects in the October political discussion condition had higher news reception scores than did subjects in the October control condition (Table 1). This difference approached significance ($p = .08$).

The control condition news reception scores actually decreased while the treatment condition scores increased. In November, when the discussion took place after the election, news reception for subjects in the control condition again decreased, but scores for subjects in the treatment condition increased, enough to achieve significant differences between groups on news reception ($p < .05$). While neither difference is statistically strong, these results provide overall support for the assumption that political discussion leads to information gathering outside of the classroom situation.

Turning to the newspaper exposure measure, after the October discussion, subjects in the treatment condition did not report reading the newspaper more often than did subjects in the control condition, as shown in Table 1. However, after the November discussion, subjects in the treatment condition did increase their newspaper reading frequency compared to the control condition ($p < .05$). This result suggests that

Table 1

Between-Group Differences on Dependent Measures[1]

(Cell entries are standard scores within each survey)

	Survey I	*t*[b]	Survey II	*t*	Survey III	*t*
News Reception						
Group 1 $\bar{x}_1$ (sd)	.022 (1.03)		.097 (1.08)[a]		-.144 (.92)	
Group 2 $\bar{x}_2$ (sd)	.015 (.97)		-.129 (.88)		.152 (1.08)[a]	
$\bar{x}_1-\bar{x}_2$	.007	+.04	.226	+1.37#	.296	+1.74*
Newspaper Exposure						
Group 1 $\bar{x}_1$ (sd)	.019 (.96)		-.046 (.95)[a]		-.141 (.94)	
Group 2 $\bar{x}_2$ (sd)	-.023 (1.05)		.043 (1.05)		.153 (1.04)[a]	
$\bar{x}_1-\bar{x}_2$	.042	+.25	-.089	-.51	.294	+1.66*
Newspaper Attention						
Group 1 $\bar{x}_1$ (sd)	-.012 (1.02)		.150 (1.06)[a]		-.062 (1.02)	
Group 2 $\bar{x}_2$ (sd)	.014 (.99)		-.155 (.92)		.094 (.99)[a]	
$\bar{x}_1-\bar{x}_2$	-.026	-.15	.305	+1.79*	.156	+.87
National TV News Exposure						
Group 1 $\bar{x}_1$ (sd)	-.110 (.95)		-.087 (.95)[a]		-.099 (.96)	
Group 2 $\bar{x}_2$ (sd)	.134 (1.06)		.120 (1.07)		.064 (.92)[a]	
$\bar{x}_1-\bar{x}_2$	-.243	-1.43	-.207	-1.18	.163	+.97

(table continues)

Table 1 (continued)

Between-Group Differences on Dependent Measures

	Survey I	t	Survey II	t	Survey III	t
Local TV News Exposure						
Group 1 $\bar{x}_1$ (sd)	-.060 (.97)		-.016 (1.01)[a]		-.038 (.89)	
Group 2 $\bar{x}_2$ (sd)	.073 (1.03)		-.004 (1.01)		-.021 (.99)[a]	
$\bar{x}_1-\bar{x}_2$	-.133	-.78	-.020	-.07	.016	+.10
TV News Attention						
Group 1 $\bar{x}_1$ (sd)	.026 (1.08)		-.008 (1.08)[a]		-.125 (.99)	
Group 2 $\bar{x}_2$ (sd)	-.032 (.91)		.011 (.89)		.115 (.99)	
$\bar{x}_1-\bar{x}_2$	.059	+.35	-.019	- .11	-.241	-1.35#
Political Discussion Frequency						
Group 1 $\bar{x}_1$ (sd)	.112 (1.12)		.073 (.98)[a]		-.124 (1.01)	
Group 2 $\bar{x}_2$ (sd)	-.136 (.82)		-.087 (1.01)		.131 (.99)[a]	
$\bar{x}_1-\bar{x}_2$	.248	+1.52	.160	+.93	-.255	-1.42#

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[1] Because of some missing values, total number of subjects (N) ranged from 66 to 78 for Group 1 and from 59 to 64 for Group 2. Data are presented in standardized scores.

a = Post-treatment measurement

b = Signs (+ and -) indicate whether net difference score is consistent with, or opposed to, the general hypothesis.

#p<.10, *p<.05, **p<.01, ***p<.001, one-tailed the November manipulation may have been stronger than the October version. It may have been less unusual to have a discussion about politics preceding the election when casual conversations about politics are more likely. Thus, the manipulation may not have been strong enough to alter newspaper reading, usually a habitual, stable communication behavior. However, a political discussion three weeks after the election -- in which election consequences comprised the topics -- could be relatively more stimulating. In this period, we find a significant increase in newspaper reading for the group that participated in the discussion.

Regarding newspaper attention, the independent variable of political discussion has a significant effect ($p < .05$) on the amount of attention subjects in the October treatment said they gave to the newspaper stories they read about politics. While the October treatment may not have led to an increase in frequency of newspaper reading, subjects in the treatment group did increase their self-reported attention to the political news they were reading. After the November treatment, newspaper attention also increased in the predicted direction for subjects in the discussion group, although this result did not reach significance.

The political discussion treatment did not have a significant effect on mean responses for either national or local television news exposure for subjects in the October or the November manipulations, as compared with the control subjects in each period. Television news use is apparently more habitual, and less subject to short-term changes, than is the case with newspaper reading. In addition, television viewing is often a group activity for most students at this residential university, and therefore may not be subject to individual control.

The difference between treatment and control condition means on attention to television news about politics approached significance ($p = .09$) in the November manipulation. There were no significant differences between conditions for television news attention following the October manipulation.

For the October manipulation, there were no significant differences in means between treatment and control condition on reported frequency of political discussion. For the November manipulation, subjects in the treatment condition talked to others about politics more frequently than did subjects in the control condition. This result approached significance ($p < .08$).

Overall the between-subjects results comparing treatment and control conditions indicate significant effects on media use. This analysis suggests that the experimental manipulation of political discussion did stimulate the information-seeking behavior of subjects in the treatment condition. The analysis of most general interest will now be considered -- whether the same subject sought more information when he or she was in the treatment condition, compared to the control condition.

Analyses Within Subjects. Data relevant to within-subjects analysis for all dependent variables are shown in Table 2. Each subject was in the treatment condition in one time period and in the control condition at the other time. The first column of Table 2 data shows the means for each dependent variable when subjects were in the treatment condition (following class discussion about politics). The second column shows the means for each dependent variable when subjects were in the control condition. These means represent change scores between measures before and after each subject was in these contrasting conditions. The third column shows the difference between treatment and control change scores, and the fourth column indicates statistical significance of these change scores. These are highly sensitive tests of the research hypothesis, since the net results are not affected by individual differences in habitual political communication. The comparison of each subject with himself reduces the error variance, and also controls for shifts in news content over time, such as campaign news compared to post-election news.

Table 2

Differences Within Subjects When In Treatment and Control Conditions[1]

(Cell entries are standard scores indicating gain from pretest to posttest)

	Experimental Condition			
	Treatment $\overline{x}_t$ (s.d)	Control $\overline{x}_c$ (s.d)	Difference $\overline{x}_t - \overline{x}_c$	t
News Reception (Knowledge)	.168 (.90)	-.198 (1.03)	.366	2.86**
Newspaper Attention	.228 (.91)	-.134 (1.00)	.362	2.43**
Political Discussion Frequency	.094 (.94)	-.012 (1.05)	.106	.70
Local TV News Exposure	.055 (.96)	-.048 (1.04)	.103	.63
TV News Attention	.079 (.96)	.020 (.90)	.059	.42
National TV News Exposure	.033 (1.11)	-.010 (1.05)	.043	.26
Newspaper Exposure	.016 (.72)	.026 (.77)	-.010	-.10

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[1] When in treatment condition, subjects discussed politics between pretest and posttest; when in control condition, they did not. Each subject (N = 121) participated in each condition but at different periods of time. Data are for treatment minus control condition, regardless of time period. Entries are presented in standardized scores.

*p<.05, **p<.01, ***p<.001, one-tailed

Did the one-time, in-class political discussion stimulate involvement in politics as evidenced by subsequent information seeking in the mass media? Results in Table 2 are presented from strongest to weakest net difference, as indicated by t-values. All net differences are presented in relation to the direction hypothesized, so that a positive sign indicates support for the general hypothesis.

News reception. As shown in Table 2, after subjects participated in the class discussion about politics, they recalled more information about current political news than when they did not participate in the discussion ($p < .01$). Since news reception requires news communication, we assume that the latter class of behaviors was significantly affected by the experimental manipulation, even if we should fail to find differences on self-report measures (below) in the survey. That is, according to the best measure -- the one least contaminated by social desirability and other frailties of self-reports -- we have clear evidence that the experimental treatment stimulated the acquisition of information about current news. Just how it might have been acquired is the subject of our remaining analyses.

Newspaper attention. After subjects were in the discussion treatment, they said they had been paying more attention to political information in newspapers than after they were in the control condition ($p < .01$). This result cross-validates the results for news reception, and explains why reception increased without a change in newspaper reading habits. Subjects may not have increased their frequency of daily newspaper reading, but they apparently changed in intensity or focus on political news as they encountered it.

There were no significant net differences, as an effect of participating in the treatment condition, in mean responses for political discussion frequency, local or national television news exposure, television news attention, or newspaper exposure. It is of course possible that some of those behaviors were affected, but our self-report measures were inadequate to detect the minor shifts that we did pick up with the news reception tests.

Tests of Hypothesis. The central hypothesis tested in this study holds that when people become involved in politics because of a situational influence (in this case, a discussion about politics), they will seek more political information than at other times. This hypothesis is supported by the overall pattern of results in Table 2; all are in the predicted direction, suggesting that participation in the discussion did have a positive effect on information-seeking behavior in general. This hypothesis also is supported by the news reception and newspaper attention results, suggesting that the social situation stimulated an active information search in the newspaper in particular, one that resulted in information acquisition, and that subjects were at least partly aware of this subtle shift in their media behavior.

This hypothesis was not supported by the information-seeking items that measured television use or interpersonal communication. This suggests that when people are situationally involved in politics, they may not seek information on television or through interpersonal channels. There is, though, the possibility of Type II error, in that these items may simply not have been sensitive enough to detect effects on the behaviors in question. It should be noted that these measures were modeled on standard survey questions, which are generally designed to assess stable traits rather than situational activities.

DISCUSSION

This study demonstrates the power of even a minor situation to affect communication behavior. The central purpose was to test empirically whether political involvement could be influenced by situational factors, beyond enduring personal traits and structural characteristics such as education and income. This research offers experimental support for this proposition. Classroom discussion did stimulate students' involvement in politics and consequent use of newspapers, at the least, to gain information. Even if subjects were not fully aware they had temporarily changed, and even if they did not modify all their communication habits, the information was there when we tested them on it. Knowledge is not a measure a person can fake, nor is it subject to ingratiation or other extraneous factors that render self-reports dubious. The treatment worked, exactly as we expected it to. And it was a most minor intervention in these students' lives.

The situational variability of political involvement is underscored by the fact that this experiment produced statistically detectable effects despite the minimal nature of the "treatment" condition. The discussion lasted only about half an hour, and students were under no compulsion even to participate. Topics that were explicitly discussed were removed from the dependent measures. There was no instruction or implication that information should be sought. And yet the predicted result was replicated in the two time periods for several measures.

Prior studies have defined political involvement as habitual interest in or concern about politics. This research, by contrast, supports the view that political involvement, stimulated by a particular situation, may be conceptually different from mere interest or concern -- terms that suggest a relatively passive or routinized orientation toward politics. This traditional conceptualization may be suitable for “predicting” habitual levels of media use and political discussion in undisturbed field situations. But when involvement refers to a motivational process, a more active conceptualization is more fitting. The data in Table 2 suggest that the discussion situation stimulated political communication activity in individuals regardless of their underlying predispositions toward politics. Situational political involvement, thus, can be thought of as a process of communication activation that manifests itself in information seeking, and perhaps in other ways, as well.

A recent field experiment by Chaffee, Moon and McDevitt, with Pan, McLeod and Eveland (1995) similarly found that a curriculum intervention can lead to a state of political activation that, in turn, stimulates political communication. After intensive elementary and secondary classroom instruction about voting during an election campaign, significant increases were found in current news knowledge, newspaper reading, television news viewing and interpersonal discussion about politics. These effects had subsided six months later, although there were residual effects on newspaper reading and public affairs knowledge (Chaffee, Moon and McDevitt 1996). The authors suggest that political socialization should be reconceptualized in terms of stimulation of communication behavior, rather than passive learning and adherence to systematic norms.

How do we know that discussion stimulated political involvement, specifically as a process of communication activation? First, the strongest results supporting this proposition were found with the least questionable measures (i.e., the news reception index). Significant effects were found in both time periods for the news reception measures of current news knowledge. This kind of measure overcomes the social desirability problems, as well as uncertainties of recall and quantitative estimation, that are inherent in self-reported media use. While subjects may overestimate or otherwise erroneously describe their media use in self reports, a high news reception score can only be obtained if the person has been following recent events as reported in the news media. There may, of course, be differences in recall due to intelligence or guessing, say, but these factors were controlled in our design because each subject contributed equally to the treatment and control data in Table 2.

The news reception measure can capture slight increases in information seeking that may go unnoticed even by the subject. Given the subtlety of the discussion manipulation, a subject might well not have been aware either that involvement had been stimulated or that communication activity had increased. Nor was there any indication that such a change was desired, or expected, by the instructor leading the discussion. Because of the unobtrusive nature of the knowledge quiz (relative to its true purpose), subjects may not have been aware that monthly changes in their media use were being measured. The news knowledge quizzes occurred in the context of a course on mass media, and it is likely that students simply tried to do their best at this task. If students answered more news reception items correctly after participating in the discussion, we can infer that political awareness and active media use had been stimulated. These "news reception" measures combine the results of each student's attention, comprehension, and recall regarding political news. The short-term increase in these indicators suggests purposive information seeking driven by an activated awareness of politics.

The newspaper was the channel apparently most affected by situationally induced information seeking, perhaps because newspaper reading may be more amenable to situational changes in media behavior. It is subject to more individual control than is television: newspaper readers can set their own pace, skip some articles and re-read others. Television news controls both the topic and the pace of news presentation, while others in the same household often control whether news will be seen (or heard) at all. And, it is likely that to someone stimulated to learn about current political affairs, the newspaper offers a richer volume and variety of relevant information.

External Validity. How generalizable are these findings? The result indicating the newspaper to be the channel used most for situationally induced information seeking may be particular to college students at a residential campus. These students, who mostly live in dormitories, have less access to television than does the general population, and students who do watch television usually do so in groups. Newspapers, in contrast, are accessible to all dormitory residents, and can be read individually on one's own schedule. While newspapers might be regarded as, on average, a more "costly" medium than television (Atkin 1973), the expense may be quite small for a university student who reads regularly, leads an independent life and may value a channel that is printed and somewhat portable.

But our strong newspaper findings may also indicate less about a subject's lifestyle and more about the nature of purposive information seeking. Surveys of general household populations show that individuals who are actively seeking political content also tend to go to the newspaper for it. This result has been found, for instance, with Lubbock, Texas voters (Tan 1980); Dane County, Wisconsin voters (Pettey 1988); and 5th through 12th grade students in San Jose, California (Chaffee et al. 1995).

Practical Implications. While we should not generalize too much from university students, the fact that a relatively brief, unstructured discussion of current news stimulated some degree of political involvement is noteworthy in itself. Discussion is often a central strategy in civic education regarding politics, in such settings as community organizations, rap sessions, and public journalism projects. This experiment can be cited as support for the assumption that discussion is not simply and end point, but the beginning of a process of further self-education by participants.

Measurement Issues. Significant information-seeking effects were found using the news reception index, which measured recall of specific news stories. Not only does this measure have high reliability, it also has high face validity: by testing subjects on information that could only have come from the news media, we are confident that an increase in "news reception" indicates that media use did occur. News reception tests the acquisition of knowledge, and in turn captures, by implication, the motivational component of active information seeking. The present study certainly enhances the construct validity of this measure. If media use had only been measured in this research by self-reported exposure (the standard in many studies), our results would have been "anemic and understated," as Price and Zaller (1993) predict. Still, the self-report measures were not worthless by any means. They were almost all affected to some extent, not significantly, but in the predicted direction. And they were sufficiently sensitive to detect the expected difference between information seeking via newspapers versus other channels. Self-report continues to be necessary for this kind of distinction, since it would be difficult to measure news reception that is specific to each channel.

Future Research. This experiment supports a causal model linking situational activity, political involvement, and information seeking and acquisition. But what particular aspect of the social situation stimulated involvement? Did peer pressure cause the students to become more attentive to politics and to seek information so they would appear well informed to their friends? Did subjects suspect that another political discussion might take place in class (although they were told otherwise), and did this expectation lead to information seeking so they could participate the next time? Or, was involvement in politics – regardless of peer pressure or social expectation – a condition that followed them out of the classroom situation? Future studies may be able to address these questions about the nature of the phenomenon we have documented here.

Future research may also investigate whether other types of discussion situations can stimulate political involvement -- discussions that are less structured or not part of a classroom situation. For now, we can suggest that political involvement is not based on stable personal characteristics alone, but also on factors that are subject to situational change. Political involvement is more than an abiding interest in politics. When it is stimulated by a situation, involvement may describe a "process of activation" that can lead to communication outcomes such as media use and political learning.

APPENDIX
CONSTRUCTION OF NEWS RECEPTION INDICES

(1) Survey 1. One point each was scored for answering the correct candidate (Kathleen Brown, Dianne Feinstein, Michael Huffington, Pete Wilson) for the following items:

(a) "Who endorses a law to end illegal immigrants' access to public school and government-financed health care?" (answer: Wilson)

(b) "Who wants to prohibit different prices for men and women for services such as dry cleaning and haircuts?" (answer: Brown)

(c) "Who says the Endangered Species Act favors animals' needs over those of people?" (answer: Huffington)

(d) "Who opposed the North American Free Trade Agreement (NAFTA)?" (answer: Feinstein)

(e) "Who is self-described as "President Clinton's No. 1 cheerleader" in California?" (answer: Brown)

(f) "Who offered to debate only on a PBS TV channel in Sacramento?" (answer: Wilson)

(g) "Who is accused in TV ads of mismanaging the state budget?" (answer: Wilson)

(h) "Who is accused in TV ads of being out of step with public sentiment against illegal immigrants?" (answer: Brown)

(i) "Who is accused in TV ads of approving federal judges who are advocates of criminal rights." (Feinstein)

(j) "Who is accused in TV ads of being called "secretive, threatening and greedy" in "government documents"?" (Huffington)

(k) "Who is a former mayor of San Diego?" (Wilson)

(l) "Who is the current state Treasurer of California?" (Brown)

(m) "Who gave an entire year's salary to charity?" (Huffington)

(n) "Who was defeated in a previous campaign for Governor of California?" (Feinstein)

(2) Survey 2. One point each was scored for answering the correct candidate (Kathleen Brown, Diane Feinstein, Michael Huffington, Pete Wilson) for the following items:

(a) "Who sponsored a bill to create national parks in the California desert?" (answer: Feinstein)

(b) "Who advocated replacing the welfare system with charitable contributions?" (answer: Huffington)

(c) "Who suggested that all Americans should be required to show identification cards for government services?" (answer: Wilson)

(d) "Who supported continuation of the CLAS system of standardized essay tests in California schools?" (answer: Brown)

(e) "Who took out a second mortgage on the family home to buy more TV ads?" (answer: Feinstein)

(f) "Who was the subject of recent Doonesbury cartoons?" (answer: Huffington)

(g) "Who was accused in TV ads of opposing the death penalty "even for drive-by killings"?" (answer: Brown)

(h) "Who was accused in TV ads of being a "Texas millionaire voters can't trust"?" (answer: Huffington)

(i) "Who was accused in TV ads of being "a career politician" who rides to work in a limousine?" (answer: Feinstein)

(j) "Who was accused in TV ads of supporting tax breaks for the rich, at the expense of students, seniors and the middle class?" (answer: Wilson)

(k) "Who spoke at Richard Nixon's funeral?" (answer: Wilson)

(l) "Who is a former mayor of San Francisco?" (answer: Feinstein)

(m) "Who is married to an ordained minister?" (answer: Huffington)

(n) "Whose father and brother were Governors of California?" (answer: Brown)

(3) *Survey* 3. One point each was scored for the correct answer for the following items:

(a) "Which one of the following has opposed GATT?
High-tech firms; California agriculture; The Sierra Club; Less-developed countries; Don't Know" (answer: The Sierra Club)

(b) "Who once said he would support GATT if there were a cut in the capital gains tax?
Newt Gingrich; Richard Gephardt; Jesse Helms; Bob Dole; Don't Know" (answer: Bob Dole)

(c) "What has the United Nations decided to do with Bosnia?
Side with the Serbs; Take over; Side with the Muslims; Pull out "peace-keeping" troops; Don't Know" (answer: Pull out troops)

(d) "Who is the next U.S. House of Representatives minority leader?
Newt Gingrich; Richard Gephardt; Jesse Helms; Bob Dole; Don't Know" (answer: Richard Gephardt)

(e) "Who is the next U.S. Speaker of the House?
Newt Gingrich; Richard Gephardt; Jesse Helms; Bob Dole; Don't Know" (answer: Newt Gingrich)

(f) "Who is the next majority leader of the U.S. Senate?"
Newt Gingrich; Richard Gephardt; Jesse Helms; Bob Dole; Don't Know" (answer: Bob Dole)

(g) "Who is the United Nations Secretary-General?
John Shalikashvili; Yasir Arafat; Boutros Boutros-Ghali; Jean Aristide; Don't Know" (answer: Boutros Boutros-Ghali)

(h) "What is not part of the 'Contract with America'? Increases in defense spending; Increases in federal food assistance programs; Cuts in the capital gains tax; Increases in spending to build more prisons; Don't Know" (answer: Increases in federal food assistance programs)

(i) "Jim Bakker...Is out of prison on parole; Has been pardoned; Was denied parole; Was killed in a prison restroom; Don't Know" (answer: Is out of prison on parole)

(j) "Who is the new president of Mexico? Luis Donaldo Colosio; Ernesto Zedillo; Silvio Berlusconi; Carlos Menem; Don't Know" (answer: Ernesto Zedillo)

(k) "Michael Huffington refuses to concede to Dianne Feinstein because he alleges vote fraud by: Dianne Feinstein; Illegal immigrants; Organized labor; The California Secretary of State; Don't Know" (answer: The California Secretary of State)

(l) "Who said President Clinton was "unfit to be Commander in Chief" of the U.S. Armed Forces? Newt Gingrich; Ross Perot; Jesse Helms; John Shalikashvili; Don't Know" (answer: Jesse Helms)

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Let's Talk About What We're Watching: Parental Behavior Towards Children's Gender and Age Regarding Television Viewing

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Let's Talk About What We're Watching:
Parental Behavior Towards Children's Gender and Age Regarding Television Viewing

ABSTRACT

A random telephone survey (N=255) of Washington state parents of children between the ages 2 and 17 assesses parents' patterns of interaction with their children regarding television viewing. How child's age, child's gender and gender of parent affects this behavior is investigated. The child's gender does not affect the way parents coview or mediate with them about television. Parent's gender, however, did matter in that female guardians are more likely to engage in negative mediation with their children than male guardians are. In addition, it is found that child's age does have a significant effect on how parents coview and mediate. A linear relationship shows that coviewing decreases as a child ages. A different trend is seen regarding child's age and negative mediation. Parents are likely to engage in negative mediation with very young children and older children, but less so during middle- childhood. This is an important finding because it is during middle-childhood that some scholars argue parental mediation is needed the most.

Let's Talk About What We're Watching: Parental Behavior Towards Children's Gender and Age Regarding Television Viewing

INTRODUCTION

The influence of television on children is a topic that has received much attention because many people believe that television is at least partly responsible for what children believe is right, wrong or possible. Among the influences being studied, family communication norms have been an important focal point, because children use both television and their families as primary sources of reference (Austin, Roberts & Nass, 1990). Many personal, social and environmental factors from which children learn "acceptable" behavior exist in a child's world (Grube, 1993). The primary behavioral effects, which are most salient, come from being under the influence of primary groups such as family and friends, but effects also come from secondary groups such as the media (Akers, 1992).

Although informal interpersonal communication processes occur in several types of social settings, it is in the family context that communication is believed to have the greatest influence, especially in the area of television mediation. Previous research in the area of television mediation has focused on parent-child relationships, yet few studies have been conducted with respect to parent-child communication in dyadic settings. Communication and influence relations can be of four dyadic types: mother-daughter, mother-son, father-daughter, father-son. Most studies of family communication processes and effects have looked at parent-child interactions in a general sense, without examining specific parent-child dyadic relations (Moschis, 1985). It is important to further investigate these dyadic types by looking at how the gender of the parent and the gender of the child affect how these dyads communicate, specifically how they communicate regarding television.

Thus, the goal of this paper is to investigate how primary influences (the family) and secondary influences (the media) interact to influence children's socialization processes. Areas such as gender of both child and parent, age of child, and the viewing behavior of parents will be investigated. Relevant issues include how the age of the child, gender of the child or gender of the parent affect how much a parent discusses and coviews television.

It is important to learn more about how primary influences are involved in how children watch television. In particular, it is useful to know the extent to which children watch television alone or with a significant adult present and the extent and nature of active discussion regarding the programming. In his 1985 book, No Sense of Place, Meyrowitz stated that the steps from childhood to adulthood include exposure to new information and restriction from other information. Parents can potentially exert a great deal of control over how information is perceived by a child, although they may have less control over what information is available. Consider, for example, that it may be acceptable to talk with a 12 year old about a topic (sex) in a manner that would be considered unacceptable, by some adults, to mention to a five year old. With television in over 90 percent of American's homes such social information is no longer easy to control. Inevitably, children are exposed to many adult social situations, which are not always approached in a delicate manner (Meyrowitz, 1985).

Past research has shown that adults may be the most effective in teaching critical viewing and usually have constant communication with their children. In a recent survey done in the state of Washington, children considered their parents an important information source (Billings, Burton, Mertens & Strong, 1993), but another survey showed parents did not see themselves in this way with regard to information about risky behavior such as alcohol use (DSHS, 1994). Research shows that if adults discuss with children what is seen on television, children will better understand the content of the programs (van der Voort, et al., 1992, Corder-Bolz, 1980; Desmond et al., 1985). Children depend upon adults to interpret what is seen on television and relate it to the real world (Messaris, 1982). Active communication, however, may seldom take place between parent and child (Austin, 1993-a) regarding television content, potentially leaving a void that gives secondary influences more power.

According to St. Peters, Fitch, Huston, Wright and Eakins (1991) in their study "Television and families: What do young children watch with their parents," there is a need to better understand the development of children's television viewing within the larger social context of socialization in the family. It is also necessary to acknowledge that the manner in which parents socialize their children often differs according the child's age and gender (Bandura, 1986). In St. Peters et al.'s research, a sample of 271 three and five year olds along with their families participated in a two-year study of television viewing patterns. Most children's shows were viewed without parents, while most adult programs were watched with parents. These authors clearly believed socialization to be important, but did not distinguish between the behaviors of mediation and coviewing. The present study takes these two distinct behaviors into consideration.

These two kinds of viewing are very different and are important to this area of research. Coviewing is simply watching television together, whereas mediation is discussing what is being watched. According to recent work by Austin (1993) and Austin and Nach-Ferguson (1994) on family communication and the media, parents have the ability to help their children be critical of television or to be more accepting of television. Austin lists ways in which parents may have control over the influence of television on their children. One possible way is through rule-making or censorship; another is by modeling behavior that either reinforces or refutes television messages. This process happens through coviewing and child's observation of parents' reactions to television. Another way parents can affect their child's interpretation is to initiate active discussion with their children regarding television content. This is often referred to as mediation. Past research suggests that coviewing is not an effective way to affect children's beliefs about television, but that active mediation is (Austin, 1993; Bower, 1973; Desmond, et al., 1985).

Whether intended or not, parents' viewing habits affect their children's perceptions of television programming. Parents often watch television without discussing it with their children. Moreover, parents watch television with their children because they are interested in the program, not because they want to offer feedback to their children. According to a study by St. Peters, Fitch, Huston, Wright and Eakins (1991), coviewing patterns of adult programs were a result of the parent's viewing habits, not the children's. Also, this coviewing decreased as the child grew older .

GENDER AND MEDIATION

Parents differ in the amount and type of television mediation they use with their children. Past findings suggest that parents may treat their offspring differently, on the basis of their gender, while interacting with them regarding television. In a study focusing on consumer consumption conducted by Moschis, Moore and Smith (1983), for example, it was found that male children were less likely than female children to communicate overtly with their parents about consumption and less likely to receive purposive consumer training. Moschis used this study as part of a meta-analysis in the field of consumer socialization. It was thus proposed by Moschis that, "parental communication processes and their effects on children's consumer learning vary by socio-demographic characteristics" (906), such as gender. Although the focus of Moschis' studies was not television mediation in general, "there is considerable evidence to suggest that family communication processes modify the effects of other socialization agents, particularly television" (Moschis, 1985, 909).

Bonaguro and Pearson (1987) state that several researchers have found that parents interact differently with their male and female children. Family communication influences adolescent identity formation and role-taking ability. Some studies examining parent-adolescent communication have found differences in the way adolescent males and females perceive mothers and fathers, and differences in the way mother and fathers perceive their male and female children. Parents speak differently to their daughters and their sons as they take more conversational turns with male than with female children and they have longer conversations with daughters.

Similarly, how parents mediate television may depend on the gender of the child. A 1986 study showed that the strength of relationship and amount of time spent with a particular parent will inadvertently effect the amount and type of television mediation by that parent. Recent research has suggested that girls spend more time and talk more openly with their parents than boys do (Richardson et al. 1986). Other research also suggests differences between the two genders in relation to the amount of communication that takes place between parent and child. In a study conducted by Nolin and Petersen (1992) regarding communication about sexuality, results indicated "striking differences in parent-son versus parent-daughter communication" (67). Communication between mothers and daughters over 17 topics was most wide ranging while mothers and sons talked about fewer than one half of the topics. Average communication between father and daughter covered about one third of the topics. Father-son communication was less than mother-son communication. Overall, parent-daughter communication was more wide-ranging than parent-son communication and both mothers and fathers indicated that some parent-child communication about sexuality was a conscious or unconscious attempt to control the sexual behavior of their daughters. Sons were also less likely than daughters to learn about sexuality in the context of family relationships. Thus, if different communication relationships exist between certain dyads within the family, mediation and coviewing is likely to differ as well. Because differences appear more striking for sensitive topics, such as those that may cause greater parental concern, it is likely that gender differences are especially acute for negative mediation. Differences are expected for negative mediation rather than positive mediation because positive mediation is more likely overall. A relative increase in positive mediation among those less likely to mediate overall may wash out any differences that might otherwise exist.

H1: Coviewing frequency will be higher for female children than for male children.

H2: Non-valenced mediation frequency will be higher for female children than for male children.

H3: Negative mediation frequency will be higher for female children than for male children.

Just as the gender of the child affects the amount of television mediation, the gender of the parent or guardian does as well. Although fathers and mothers report the same amount of selectivity in viewing, mothers dominate fathers when they disagree over which program to watch and remain an important agent of control in television viewing (Lull, 1982; Barcus, 1969). In the same study conducted by Nolin and Petersen (1992) regarding communication about sexuality, mothers were more likely than fathers to discuss sexual issues with both sons and daughters. Fathers perceived their wives as being more capable of discussing sexuality with both sons and daughters. Children of both sexes also saw their mothers as the more appropriate parent with whom to discuss sexual matters. This holds true for not only communication about sexuality but communication in general. Both girls and boys report that they talk more openly with their mothers than they do with their fathers (Youniss & Ketterlinus, 1987). If mother-child communication is more prevalent than father-child communication then it is likely that mothers mediate more than fathers. This also suggests that a mother's viewing and discussion habits may be more relevant to children than a father's viewing habits, particularly in the case of negatively valenced discussion.

H4: Coviewing frequency will be higher for female guardians than for male guardians.

H5: Non-valenced mediation frequency will be higher for female guardians than for male guardians.

H6: Negative mediation frequency will be higher for female guardians than for male guardians.

GENDER MATCHING

Not only may gender of child and parent make a difference to coviewing and mediation patterns, but the dyadic match of genders between parent and child also may matter. In other words, it is expected that mothers will mediate more with daughters than with sons and that fathers will mediate more with sons than with daughters. According to a 1991 study, "Boys watched more variety-game programs with their fathers. Children watched sports programs with both parents or with their fathers; they did little viewing of sports alone or with their mothers exclusively. Boys viewed more sports with their fathers than girls, and the older girls were the least likely to watch sports programs" (St. Peters, Fitch, Huston, Wright & Eakins, 1991, p. 1414). This suggests that same sex dyads, for example father and son, may have higher incidents of coviewing or mediation.

Support for such dyadic-level gender differences in parent child relations also received support from research by Starrels in a 1994 study. This study used longitudinal data from the National Survey of Children in order to examine parent-child relationships between 1976 and 1981. The children were in middle-childhood and early adolescence. The data showed that mother-daughter relationships were generally strongest while father-daughter relationships tended to be less strong. They also found that the quality (supportive, nurturing) of parent-child relations is a better predictor than family structure (income, who is working) of children's well-being, underscoring the importance of an understanding of family communication processes regarding the media.

A step towards a better understanding of family communication in this context is to further examine the effect gender congruity may have on coviewing and mediation specifically. In a 1994 study Starrels reinforced the research on gender differences with the findings that mother-daughter relationships were generally strongest, while father-daughter relationships were less strong. In addition, Starrels suggested that a father's role is mainly disciplinary. Mothers are usually more dominant in the affective and supervisory spheres. Parenting styles themselves may not differ much because the mother is frequently a 'gatekeeper' of father-child relationships, and so a mother's constructive parenting may predispose the father to adopt a similar style. Thus, fathers may adapt the mother's style of mediation and mothers may have the strongest effect on children's perceptions of television (Lull, 1982) through increased input overall.

In addition, past studies suggest that same-sex mediation may be most prevalent. Fathers prefer to interact with sons more than daughters. Again this supports the likelihood of higher same sex mediation. Sons reveal more similarity in their relationships with fathers and mothers than do daughters who feel significantly closer to their mothers. Fathers tend to give more nurturance through buying something or giving money as a reward for good behavior (instrumental). Also fathers give less affective nurturance and daughters receive less instrumental attention from fathers. This demonstrates a same-sex pattern of gift-giving and money exchange. "Parenting is undoubtedly a gendered activity" (Starrels, 1994, 160). Mothers tend to treat their sons and daughters the same in the traditional, affective sense. Fathers, on the other hand, are much more involved with their sons. Male relations seem to be shaped by doing things together rather than by talking. This could include TV viewing. As Starrels (1994) noted, fathers need to expand the amount of supportive parenting practices they offer and they also need to participate in cross-sex parenting along with same-sex parenting equally. This suggests why different mediation patterns in the different parent-child dyads may exist.

H7: Gender of parent and child will interact to predict coviewing such that same-sex dyads have higher levels of interaction, particularly for men and boys.

H8: Gender of parent and child will interact to predict non-valenced mediation such that same-sex dyads have higher levels of interaction, particularly for men and boys.

H9: Gender of parent and child will interact to predict negative mediation such that same-sex dyads have higher levels of interaction, particularly for men and boys.

CHILD'S AGE

The question still remains at exactly what age parental mediation is most likely to occur and at what age children need it most. Parent-child communication can take many forms and differs with age. What parents might talk about with a 5 year old would differ than what they would talk about with a 15 year old. Meadowcroft (1985) has suggested that family communication styles differ with the child's age for important developmental reasons. It is likely these differences are relevant to coviewing and mediation patterns as well. Moschis (1985) conducted a meta-analysis of the role of family communication in consumer socialization of children and adolescents that supported this view. In relation to children's age, it was found that parental influence on consumer decision patterns and overt parent-child communication about consumption declined with age. Thus, "youths attain greater family independence in decision-making with age" (904).

Other research supports the expectation that a child's age has an effect on the amount of mediation and coviewing that takes place. Parents often watch television with their children because they are interested in the program, not because they want to discuss its content with their children. According to a study by St. Peters, Fitch, Huston, Wright & Eakins (1991), coviewing decreased as the child grew older. Overall most types of program viewing with parents decreased from age 3 to 7 while viewing without parents remained stable. (St. Peters, Fitch, Huston, Wright & Eakins, 1991). This may suggest that coviewing will be high for very young children because parents need to be with the young child constantly for general supervision and this may include television viewing. Coviewing may then decrease when children can take care of themselves because the parents are not interested in children's programming. Finally, an increase in coviewing may occur when a child reaches an age when they are watching the same programming as their parents. This would suggest a curvilinear relationship with child's age and amount of coviewing. This may be the case for parental mediation as well.

H10: Age will have a curvilinear association with coviewing such that levels of coviewing are highest for youngest and oldest children.

It seems clear that from developmental theory mediation will be most effective with young children, rather than with older adolescents (Miller, Smith & Goldman, 1990 Austin & Nach Ferguson, 1995). By the time children are two years old they are watching television with purpose and learning from it (Adler, et al., 1977) Around the age of seven is when children begin to understand the motivation for actions, "why" characters on television do what they do and if it is appropriate or not (Dorr, 1980). A definite age cannot be given for when parental mediation is most important. As Higgins and Parsons make clear in their 1983 article, exposure, experience and environment are different for each individual, and thus each individual's development is unique. So the clear stages given in work such as Piaget's puts young children in the concrete operational stage, but this category is only a guide, not an absolute (Flavell, Miller & Miller, 1993).

Nevertheless, at around age seven to age nine children are beginning to accept the values of peers and older role models rather than naturally accepting those of their parents. They are also better able to understand messages in different forms and are now able and willing to express their, in some cases, newly acquired views, (Miller et al., 1993; Austin, 1995). This time frame then, may be when children need parental mediation the most yet are least likely to receive it.

Because coviewing tends to increase with age due to shared interest, this suggests that parent-child interaction increases with age particularly with regard to positive reinforcement. Coviewing appears to occur because of positive views toward television content rather than because of negative views. In fact, researchers have found that coviewing is more likely when parents value television content and think children should learn from television (Dorr, Kovaric & Doubleday, 1989). In addition, other scholars say that greater viewing time tends to imply less rule making and less critical viewing (Atkin, et al., 1991; Desmond et al., 1985). Research on family communication patterns has determined that positive reinforcement would be more likely than negative reinforcement among frequent viewer, and perhaps also among those who frequently watch television together (Lull, 1982).

H11: Age of child will have a curvilinear association with non-valenced mediation such that levels of non-valenced mediation are highest for youngest and oldest child.

H12: Age of child will have a curvilinear association with negative mediation such that levels of negative mediation are highest for youngest and oldest child.

H13: Age of child will have a curvilinear association with positive mediation such that levels of positive mediation are highest for youngest and oldest child.

Thus, this study seeks to further investigate the relationship between the amount of parental mediation and their children's sociodemographic characteristics such as age and gender. The study also investigates the age at which mediation occurs and if the relationship is linear or curvilinear and if this mediation differs according to the gender of the child and the gender of the parent.

METHOD

A statewide phone survey (N=255) was conducted using a purchased list of phone numbers generated by a random digit dialing system. Additional phone numbers were created using the "plus one" method. The phone survey was conducted by undergraduate communication students who completed a half hour training session prior to making calls. The survey took approximately eight minutes to complete and a response rate of 55% was obtained.

Respondents

Respondents were parents who had at least one child living at home between the ages of 2 - 17. If a parent had more than one child in that age bracket they were instructed to think of the child with the most recent birthday when answering the questions. More female parents (58%, n = 144) than male parents (42%, n = 107) responded. Respondents were predominately Caucasian (90%, n = 225), with a small representation of Native American (n = 9), Hispanic (n = 7), Asian (n = 4) and African American (n = 2) ethnicities. Respondents' age ranged from 19-69 (M = 40). The mean education level of the respondents was 3.33, or some college. The mean income level was between $35,000-50,000 and ranged from under

$15,000 to over $50,000. Among the parents, 76 percent (n=15) were married, with 9 percent (n =23) single, 6 percent (n = 15) divorced and single, 8 percent (n = 19) divorced and separated, and 2 percent (n = 4) widowed. The gender of the child used as a reference for each parent respondent was fairly evenly split, with 52% girls (n = 132) and 48% boys (n = 123). The child's age was also approximately balanced with each age 2 - 17 making up four to nine percent of the sample (M = 9.45).

Instrument

The instrument was a survey designed to measure parental concern towards television genres and issues, positive mediation, negative mediation, viewing habits, attitudes toward advertising, attitudes toward alcohol use and demographics. A list of measures is included in the appendix. Parental mediation measures were based on the mediation scale used by Austin and colleagues (Austin, 1993; Austin & Nach-Ferguson, 1995) for use with children. The measures were modified for relevance to parent respondents, and additional measures intended to tap positive mediation and to make distinctions among mediation for advertising versus mediation for programming were included.

Factor analysis was performed on each index to confirm its unidimensionality, and Cronbach's alpha were computed to verify reliability. The scale measuring negative mediation consisted of five items placed on a five-point Likert scale (alpha = .76). Parental concern toward television content was measured by a list of three genres, (news, advertising, and entertainment), for which respondents indicated whether they thought the genres generally teach really good things or really bad things to children, as well as a list of three issues, (politics, sexual, and issues concerning alcohol), for which respondents indicated whether television teaches children really good or really bad things about each issue. Cronbach's alpha for the concern toward genres scale was .66. Coviewing was assessed by asking parents how often they watched television with their child in the past week. Attitudes toward advertising were measured by asking parents how entertaining, honest, realistic, and stereotypical they perceived ads to be. Demographic measures included educational level, marital status, ethnicity, income, age, and gender. Descriptive statistics may be found in Table 1.

Table 1 About Here

All hypotheses for age were tested via regression and the hypotheses for gender were tested via 2 (child's gender) X 2 (parent's gender) factorial analysis of variance.

RESULTS

Overall it was found that both male and female guardians are most likely to "often or very often" engage in negative mediation (*m*=4.2). They are likely to engage in non-valenced mediation "often" (*m*=3.8). Also, they reported coviewing "somewhat often" (*m*=3.5) and engaging in positive mediation "sometimes" (*m*=3.3).

The first three hypotheses focused on the effect child's gender has on parent-child television viewing. As shown in Table 2, hypothesis 1 predicted that coviewing frequency would be higher for female children than for male children. Analysis of variance showed no significant difference. Similarly, no significant difference was found for hypothesis 2, which predicted that non-valenced mediation frequency would be higher for female children than for male children. In addition, hypothesis 3 which predicted that negative mediation frequency would be higher for female children than for male children was not confirmed. This suggests that parents believe they treat their children the same regardless of the child's gender.

Table 2 About Here

The next three hypotheses focused on how the guardian's gender affects parent-child television viewing. Analysis of variance showed no significant difference for hypothesis 4, which predicted that coviewing frequency would be higher for female guardians than for male guardians. Hypothesis 5, which predicted that non-valenced mediation frequency would be higher for female guardians than for male guardians, was also not confirmed. Hypothesis 6, however, which predicted that negative mediation frequency would be higher for female guardians than for male guardians, was supported. Female guardians did use negative mediation (m=25.84) more than male guardians (m=24.69). These findings are shown in Table 3. The results confirmed the expectation that negative mediation is the more likely context for gender differences to be observed. This reinforces the family communication literature, which states that parents are most likely to speak out about something with which they disagree. In addition, the fact that it is the female guardian who is most likely to use negative mediation supports previous findings which found that mothers have more discussions with children than fathers do.

Table 3 About Here

The next set of hypotheses focused on the interaction of guardian and child's gender with regards to television viewing. Hypothesis 7, which predicted that gender of parent and child would interact to predict coviewing such that same-sex dyads have higher levels of interaction, particularly for men and boys, was not confirmed via analysis of variance. Similarly hypothesis 8, which predicted that gender of parent and child would interact to predict non-valenced mediation such that same-sex dyads have higher levels of interaction, particularly for men and boys, did not receive support. Hypothesis 9 was not supported as well. It predicted that gender of parent and child would interact to predict negative mediation such that same-sex dyads have higher levels of interaction, particularly for men and boys. These results are shown in Table 4.

Table 4 About Here

The final set of hypotheses focused on the relationship of the child's age and the amount of coviewing or types of mediation reported. Hypothesis 10 predicted that age would have a curvilinear association with coviewing such that levels of coviewing are highest for youngest and oldest children. A curvilinear relationship was not found, but a significant linear relationship was found ($\underline{b}$=-172,$\underline{p}$<.01) showing that coviewing decreased with age. Table 5 shows the results of the regression tests. Hypothesis 11, which predicted that age of child would have a curvilinear association with non-valenced mediation such that levels of non-valenced mediation are highest for youngest and oldest child was not supported. A significant linear relationship did not exist either. Hypothesis 12, however, which predicted that age of child would have a curvilinear association with negative mediation such that levels of negative mediation are highest for youngest and oldest child, was supported (b=-178, p<.01). Finally, hypothesis 13 which predicted that age of child would have a curvilinear association with positive mediation such that levels of positive mediation are highest for youngest and oldest child was not confirmed. This lends further support to the likelihood of negative mediation being more variable than positive mediation and the trend for mediation to be high with the youngest and oldest child, but low with children in middle-childhood.

DISCUSSION

This study did not find many differences in parent-child viewing habits due to gender, but the differences that were found are consistent with the literature. It is important to take into consideration that this was a self-report survey completed by parents. This is both a strength and a weakness. Adults' answers are likely to be more reliable than children's on such a survey; however, parents may perceive their communication with their child very differently from how the child perceives it.

It is interesting, in light of the parent self-report survey, that the gender of the child did not make a significant difference in how parents communicate about television. The results are surprising given past research has shown that communication differences exist. Also a recent survey shows that parents often report having specific discussions with their children, but children do not report having these discussions. If parent-child pairs had been interviewed, would the results be the same? Perhaps parents want to believe they treat their children the same regardless of the child's gender. Thus we may be seeing a social-response bias.

Although gender of the child appeared to have no effect on communication style, gender of the parent did with regards to negative mediation. This finding supports past research. In these data, female guardians were more likely to offer more negative mediation to their children than male guardians were. This could be the case because women are often the primary care-givers to children, or that men tend not to talk about television with their children. Neither men nor women were found to coview or engage in non-valenced mediation as often as they were likely to engage in negative mediation with their children, but female guardians are more likely to offer the negative mediation.

Surprisingly no significant relationships were found with gender matching. Literature suggests that same-sex dyads will communicate more. This was not the case with regards to coviewing and mediation about television. Again a more clear picture of gender matching would be likely if child-parent dyads were interviewed.

As the child development literature would suggest, parents communicate differently with their child according to the child's age. The finding that a curvilinear relationship exists between child's age and negative mediation is extremely important to note. Parents tend to offer negative mediation to very young children and older adolescents leaving those in middle-childhood to muddle through media messages more on their own. This is unfortunate, because it is during middle-childhood when mediation is needed the most. Research suggest that this is a "critical period" for children. They are taking in many media messages, peer influence is increasing and parental influence is beginning to fade (Miller et al., 1990; Austin & Johnson, 1995). The finding that coviewing decreases with age is not surprising, since as children age they don't need their parents' supervision, thus are more likely to be left alone when watching television. It was somewhat surprising that coviewing did not increase as the child aged due to similar program interests. This may suggest that teens have their own television set and that once coviewing ends it does not start again.

This study opens many doors for future research in this area. It is important to better understand the different perceptions parents and children have of the same communication. Also research is needed to find the most efficacious way to educate adults about the importance of mediation and how to mediate. Girls and boys may become more sophisticated in their critical viewing skills at different ages. This suggest that girls may need mediation at a younger age than boys, but they both need it during middle-childhood when they appear to be receiving less. Why are parents more likely to mediate with the younger and older children? And what is the consequence for children? Finding the answers to these questions should be a priority in family communication and media effects research.

Table 1

Means, standard deviations, and reliabilities of variables

	N	Means	S.D.	Range	Alpha
Age (child)	255	9.45	4.71	2-17	
Index: Attitudes (pos/neg)	245	15.56	4.18	6-30	.66
TV_politics	250	2.71	1.07	1-5	
TV_sexual issues	249	1.93	1.11	1-5	
TV_alcohol use	251	2.28	1.22	1-5	
TV_news	253	3.28	1.15	1-5	
TV_advertisements	255	2.29	1.23	1-5	
TV_entertainment	255	3.07	1.13	1-5	
Index: Positive mediation	250	6.58	2.07	2-10	r=.33***
Agreement with TV	252	3.70	1.23	1-5	
Agreement with TV ads	251	2.87	1.31	1-5	
Index: Negative mediation	243	25.35	4.40	6-30	.74
TV is not OK	252	4.64	.80	1-5	
TV ads are not OK	252	4.16	1.15	1-5	
Things on TV are not real	253	4.53	1.01	1-5	
TV ads aren't true	251	4.22	1.08	1-5	
Tell more about TV	251	3.95	1.23	1-5	
Explain ad's intention	251	3.76	1.36	1-5	
Talk about TV	254	3.83	1.19	1-5	
TV ads are honest	253	2.11	.94	1-5	
TV ads are entertaining	254	3.46	1.02	1-5	
TV ads are realistic	253	2.04	.78	1-5	
TV ads teach stereotypes	251	3.98	.84	1-5	
TV is a good babysitter	254	2.02	1.13	1-5	
TV is a good learning tool	247	3.44	1.01	1-5	
Watch prime time TV	254	2.99	1.22	1-5	
Watch sports programs	253	1.98	1.03	1-5	
Watch educational shows	252	3.06	1.25	1-5	
Watch news programs	254	3.87	1.21	1-5	
Coviewing	254	3.50	1.30	1-5	
Index: Desirability	240	11.84	4.08	4-20	.83
People in ads_successful	251	2.70	1.28	1-5	
People in ads_healthy	249	2.72	1.28	1-5	
People in ads_fun	247	3.02	1.27	1-5	
People in ads_attractive	249	3.50	1.19	1-5	
Index: Norms (Real Life)	241	9.54	3.28	4-20	.86
Beer drinkers_successful	249	2.37	1.01	1-5	
Beer drinkers_healthy	246	2.26	.91	1-5	
Beer drinkers_fun	247	2.58	1.06	1-5	
Beer drinkers_attractive	247	2.38	.92	1-5	

Table 1 (Cont.)

Means, standard deviations, and reliabilities of variables

	N	Means	S.D.	Range	Alpha
No. of children	251	1.96	1.02		
Income	208	1.96	1.02	0-3*	
Education	250	3.33	1.09	1-5**	
Age (parent)	246	39.56	7.88	19-69	

Note: High score indicates an answer in agreement with the statement or a more frequent behavior

* Income : 0 = <$15,000; 1= over $15,000 but <$35,000; 2 = over $35,000 but <$50,000; 3 = over $50,000.

** Education: 1=less than high school; 2=high school graduate; 3=some college; 4 =college graduate; 5 = graduate work;

*** P=<.001

Table 2

Means for Communication Patterns by Gender of Child

	Gender of Child			
	Male Child	Female Child	F	DF
H1 - Coviewing	3.49	3.49	.01	(1,247)
H2 - Non-valenced Med.	3.93	3.73	1.84	(1,247)
H3 - Negative Med.	25.28	25.41	.01	(1,236)

Note: High number indicates more frequent interaction.
Coviewing and Non-valenced based on a 5-point scale.
Negative Mediation based on a 30-point scale.

Table 3

Means of Communication Patterns by Gender of Guardian

	Gender of Guardian			
	Male Guardian	Female Guardian	F	DF
H4 - Coviewing	3.40	3.56	.85	(1,247)
H5 - Non-valenced Med.	3.77	3.87	.45	(1,247)
H6 - Negative Med.	24.69	25.84	4.06 **	(1,236)

Note: (** P= .01)

Note: High number indicates more frequent interaction.
Coviewing and Non-valenced based on a 5-point scale.
Negative Mediation based on a 30-point scale.

Table 4

Means for Communication Patterns by Interaction of Guardian and Child's Gender

	Gender of Guardian and Child					
	MG - MC	MG - FC	FG - MC	FG - FC	F	DF
H7 - Coviewing	3.41	3.39	3.56	3.55	.01	(1,247)
H8 - Non-V Med.	3.80	3.73	4.03	3.73	.53	(1,247)
H9 - Neg Med.	24.20	25.22	26.19	25.53	2.14	(1,236)

Note: High number indicates more frequent interaction.
Coviewing and Non-valenced based on a 5-point scale.
Negative Mediation based on a 30-point scale.

Note: MG = Male Guardian
MC = Male Child
FG = Female Guardian
FC = Female Child

Table 5

Results of Hierarchical Regression Tests of Hypotheses

Dependent Vars Independ. Vars	R-square Change	Beta	DF	F
H10 Coviewing				
Child's Age	.029 **	-.172 **	(1, 252)	7.69 **
Curvilinear Test	.015	-.079	(2,251)	4.66
H11 Non-valenced Mediation				
Child's Age	.000	.016	(1,252)	.07
Curvilinear Test	.003	-.583	(2,251(	.46
H12 Negative Mediation				
Child's Age	.007	.084	(1,241)	1.75
Curvilinear Test	.032 **	-.178 **	(2,240)	4.87 **
H13 Positive Mediation				
Child's Age	.002	-.048	(1,246)	.59
Curvilinear Test	.000	-.013	(2,245)	.32

(Note: ** P=.01)

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Appendix

Measures used in the analysis

Communication Frequency:
five-point scale: never to often

How often do you talk about politics with your child?
How often do you talk about health issues with your child?

Coviewing:
five-point scale: never to often

How often do you and your child watch TV together?

Mediation Frequency:
five-point scale: never to often

A. Nonvalenced:

How often do you talk about TV with your child?

B. Negative Mediation:

I'd like to know how often tell your child more about something you've seen on TV?
How often do you tell your child that something you've seen somebody do on TV is not OK?
How often do you tell your child that something on TV is not real?
How often do you tell your child that an ad on TV says something that isn't really true?
How often do you tell your child that something you've seen in a TV ad is not OK?
How often do you explain to your child what ads on TV are trying to do?

C. Positive Mediation:

How often do you tell your child that you agree with something you've seen in a TV ad?
How often do you tell your child that you agree with something you've seen on TV?

Attitudes Toward Television Content:

five point scale: teaches really bad things to teaches really good things

A. Topics:

Politics

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Sexual issues
Alcohol use

B. Genres:

TV News
Advertisements
Entertainment programs

Attitudes Toward TV Source Use:
five-point scale: strongly disagree to strongly agree

TV is a good babysitter.
TV is a good learning tool.

Political Efficacy:

My vote makes a difference.

Viewing Habits:
five-point scale: not at all to every day

About how many days a week do you watch the following types of shows?

Prime Time TV?
Sports programs?
Educational shows?
News programs?

A Model of Affect and Expertise:
An Examination of their Roles in Media Effects Research

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A Model of Affect and Expertise: An Examination of their Roles in Media Effects Research

Abstract (75 words)

This paper presents a theoretical model to examine the interactive influences of affect and expertise on media effects processes. The model suggests that experts judgments are likely to be influenced by their moods via a relatively subtle and indirect affect-priming process. For novices, in contrast, it is likely to occur when they use their feelings as information to help them make decisions. Applications of this model to mass communication effects, including the third-person effect, media framing and priming, are discussed.

A Model of Affect and Expertise: An Examination of their Roles in Media Effects Research

People often frame discussions of the mass media in terms of emotions. They talk about how a television program made them feel, about the emotions elicited by a particularly poignant film, and about how they feel about issues they encounter in the news. It is perhaps surprising that very little research on the social effects of the mass media specifically looks at the role of affect. Indeed, much of the theory and research of the past few decades has focused almost exclusively on cognition and information-based processing. Much of this trend can be explained by noting that mass communication research has followed a path parallel to, but slightly behind, work in psychology, which itself underwent a cognitive revolution in the 1960's and 70's. However, mass communication researchers have, so far, fallen behind recent social cognition research in the area of affect. The present paper represents an attempt to rectify that situation by suggesting a means for conceptualizing how affect might be incorporated into mass communication theories.

Research in social psychology over the past decade has begun to examine the relationship between cognition and affect in social situations (see Clore, Schwarz, & Conway, 1994, for a review). The focus of much of this work has been on the effects of feelings on information processing, impression formation, and decision-making. On the one hand, affect has been found to influence how information in long-term memory is accessed, seen to help determine how carefully information is processed, and found to exert a direct influence on certain judgments and evaluations. On the other hand, a number of experimental investigations of preferences, attitudes, and impression formation suggest that there are cases in which affect precedes cognition and that affect can sometimes be generated without prior cognitive processes. For example, Zajonc (1980 & 1984) suggested that affect and cognition are separate and partially independent processes. Developments in all of these areas carry potential implications for media researchers. As

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Garramone (1992) pointed out, mass communication research should adopt a "warm" approach by taking individuals' needs, desires, motives, and affect into account (p. 150).

Just as with a number of media effects, the influences of affect do not operate identically for all people, however. Studies in social cognition, political cognition, and mass communication have examined expertise-based individual differences in information processing (see Krosnick, 1990b for a review). Their research (e.g. Graber, 1988) suggests that findings on conventional social-demographic variables tend to be problematic, whereas those focusing on expertise or prior knowledge (see Fiske and Kinder, 1981; Lau, 1986) are more consistent. In fact, expertise has become increasingly considered an important conditional variable in research on the effects of the mass media and has been particularly effective as a way to differentiating people and in identifying subsets of the population more and less likely to be influenced by the media. For example, in their study of the influence of affect on cognitive responses to news stories, Hsu and Price (1993) found that political expertise served to condition the relationship. They found that experts were more likely to be influenced by their moods than were novices.

In this paper, we will propose a model for conceptualizing the interactive effects of affect and expertise on media message processing. The paper will begin with brief reviews of literature in affect and expertise. Terms in both areas will be defined and specific emphases will be given to the impact of each on information processing and social judgment. A model will then be suggested to delineate the mechanisms by which affect and expertise interact during media message processing and produce differential impact. To illustrate how this model can be applied to media effects, the paper will then turn to the third-person effect (Davison, 1983), reviewing the literature on factors that can affect the likelihood of observing that effect and suggesting a number of testable propositions which future research can explore. Finally, the paper will briefly suggest ways in which the affect-expertise model can be applied to other mass communication phenomena, particular media framing and priming.

The Role of Affect in Information Processing

Recent advances in social psychological investigations of affect and cognition provide powerful new tools that can be applied to analyses of news processing, the third-person effect, and other media-related phenomena. The present discussion will begin by defining important terms used in research on affect. It will then turn to a review of the major theories that have been developed to explain the relationship between affective states and cognitions during social perception and judgment.

Defining Affect

It seems sensible to begin the discussion by distinguishing between the terms variously used in the literature to describe feeling states. Affect, moods, and emotions, the psychological states they represent, and their impact on social behaviors have been widely discussed by several social psychologists (e.g., Fiedler & Forgas, 1988; Forgas, 1991; Frijda, 1986). However, as Forgas (1992) observes, there seems to be little general agreement in the literature about the definition of specific terms such as affect, feelings, emotions, or moods. Forgas (1992), after reviewing relevant literature in this area, suggests that affect is used as a broad label to refer to both moods and emotions. Moods are "low intensity, diffuse, and relatively enduring affective states without a salient antecedent cause and therefore have little cognitive content" (p. 230). People simply feel good or feel bad overall. Emotions, on the other hand, are different from moods, and are believed to be "more intense, short-lived, and usually have a definite cause and clear cognitive content, such as fear and anger" (p. 230). Most research investigating affect and social judgments have focused on low-intensity general mood states rather than specific emotions. In addition, Forgas (1992) suggests that the wide use of moods in empirical research may be because moods seem to have a "potentially more enduring, subtle, and insidious effect on memory, information processing, and judgments than do distinct emotions" (p. 230). Following Forgas' suggestion, the focus here will be on the effect of moods on media message processing.

Affect, Information-Processing and Judgments

The assumption that our moods can strongly influence how we evaluate and judge social stimuli and how we subsequently behave has stimulated a large number of experimental studies in the areas of social cognition, persuasion, attribution, and interpersonal behavior. However, although the evidence for affective biases in social judgments is now overwhelming, a review of the theoretical interpretations of this phenomenon reveals some conflicting explanations (Forgas, 1992). This paper will focus on two major contemporary theories: the affect-priming model (Bower, 1981 & 1991) and the affect-as-information model (Schwarz & Clore, 1988; Schwarz, 1990) which appear to provide plausible explanations for the interactive influences of affect and expertise on media effects generation.

The Affect-Priming Model and the Affect-as-Information Model

Developed by Bower (1981) and based on an associative network approach (e.g., Anderson, 1983), the affect-priming model suggests that affect is capable of influencing social judgments by selectively facilitating the accessing and retrieval of similar or related cognitive categories. Bower (1981) suggests that each affective state has a "specific node or unit in memory...linked with propositions describing events from one's life during which that emotion was aroused...Activation of an emotion node also spreads activation throughout the memory structures to which it is connected" (p. 135). Accordingly, when material is learned in a particular affective state, that material is linked to the respective affect node. When such a node is later stimulated, activation spreads along connecting pathways in memory, increasing the activation potential of other nodes.

Based on these assumptions, this model suggest that mood can (a) facilitate learning when the context at the time of recall matches the context at the time of learning (state-dependent recall); (b) selectively focus attention on mood-congruent information (mood-congruent exposure); (c) selectively help the retrieval of mood-consistent information (mood-congruent recall) and (d) selectively facilitate mood-consistent association and the interpretation of ambiguous information in a mood-consistent way (mood-congruent encoding of new material) (Forgas, 1991).

There is now substantial evidence supporting the basic postulates of mood-priming models from a variety of domains dealing with learning, memory, attention, and judgmental processes. For example, in their attribution study, Forgas, Bower, and Moylan (1990) found that subjects in negative moods were more self-critical than those in positive moods. In addition, Niedenthal and Setterlund (1994) found that happy subjects were faster than sad subjects in identifying happy words to which they previously were exposed, and sad subjects were faster than happy subjects in identifying sad words.

However, the empirical evidence is not entirely supportive. Some researchers have failed to find evidence of a mood-state dependent memory effect (e.g. Bower & Mayer, 1985; Parrott & Sabini, 1990). Others have reported more consistent and enduring mood effects associated with positive than with negative moods (Forgas, Bower, & Krantz, 1984; Isen, 1984) and have thus proposed a "mood-regulation hypothesis" (Parrott & Sabini, 1990). Moreover, some critics suggest that mood-congruent recall is most likely to be obtained for self-referential material such as autobiographical recall and that mood congruency may be limited to relatively unstructured material. Finally, the effect seems to be difficult to observe when positive and negative elements are interconnected in stimulus materials (Clore, Schwarz, & Conway, 1994).

Taken together, the literature suggest that the influences of positive affect on cognitive processes are more pronounced and more consistent, whereas the influences of negative affect are more complex. People in negative moods may tend to see the negative side of stimuli and remain pessimistic. On the other hand, they may also be stimulated to change or eliminate unpleasantness feeling states. This process is referred to as mood repair. In contrast to the mood-priming phenomenon, these mood repair attempts may involve engaging in relatively positive behavior and thinking. Accordingly, it is relatively difficult to predict, in the case of negative affect, whether thought and behavior will be affect-compatible or affect-incompatible (i.e., mood-repair).

Based on observed inconsistencies in the effects of different affective states, several scholars have suggested that the role of emotions in social judgments is a far more direct one than the affect-priming model would imply. Schwarz and Clore (1988) propose that mood can have a direct informational role, with mood in effect, telling people how they feel about social stimuli. When asked to make a social judgment, according to their model, people consult their existing mood state to infer their evaluative reactions to the target and make a judgment accordingly. In other words, people ask themselves "How do I feel about it?" and use their feelings as information to make judgments rather than computing an impression on the basis of recalled features of the target. In this way, affect functions as a judgment-simplifying heuristic device.

Since both the affect-priming and the affect as information approaches have received substantial empirical support, some scholars have specified the different conditions under which individuals will either use the "how-do-I-feel-about-it" heuristic or will be likely to adopt more effortful, retrieval-based strategies. Schwarz (1990) specifies four conditions under which the use of a "how-do-I-feel-about-it" heuristic is more likely to occur: (a) when the judgment at hand is affective in nature (e.g., liking for another person); (b) when little other information is available; (c) when the judgment is overly complex and cumbersome to make on the basis of a piecemeal information processing strategy; and (d) when time constraints or competing task demands limit the attentional resources that may be devoted to forming a judgment. On the other hand, recall mediated effects should be more likely when individuals engage in effortful piecemeal information processing and when individuals have sufficient time and attentional resources to do so.

Mood and Likelihood Judgments

To bring this discussion closer to the realm of the third-person effect and other judgment-based media effects, it will be useful to include a look at how affect has been seen to influence likelihood estimates. In an early study on mood and judgment, Johnson and Tversky (1983) investigated the impact of positive and negative moods on the perceived frequency of negative events. Their study showed that people in negative moods viewed negative events as more frequent than people in positive moods. More recent studies have further shown that people in positive moods also give higher likelihood estimates of positive events than people in neutral or negative moods (e.g. Erber, 1991; Forgas and Moylan, 1987; Mayer, Gaschke, Braverman and Evans, 1992). These results are consistent with the assumptions of affect-priming theories (e.g., Bower, 1981) since these explanations would suggest that positive moods could make positive events seem more likely than would negative moods.

Expertise and Information Processing

Since expertise has been found to be an important factor in influencing information processing, its conceptualization and the relevant research in social cognition deserve some attention here. The concept of expertise has been explored in several problem-solving domains, including chess, baseball, physics, taxi driving, medicine and algebra (Krosnick, 1990a). Recently, social psychologists have also shown an increasing interest in expertise and have examined its role in person perception and social information processing (e.g. Borgida & DeBono, 1989; Dawson, Zeitz, & Wright, 1989).

Political scientists have also maintained an interest in this concept. For example, in *The American Voter*, Campbell, Converse, Miller, and Stokes (1960) showed that highly politically involved citizens have more ideologically organized views about political affairs than do less involved. During the years since then, many investigators have found that politically involved and uninvolved citizens think differently about political events in numerous other ways as well (e.g. Belknap & Campbell, 1951; Converse, 1964; Chong, McClosky, & Zaller, 1983; Geddes & Zaller, 1989; McClosky & Brill, 1983; Nie, Verba, & Petrocik, 1979; Stimson, 1975).

Defining Expertise

Krosnick (1990a) notes that although there is some agreement in the social cognition field with what expertise can mean in terms of information processing, there is far less agreement about how it should be operationally defined. At its core, expertise usually refers to the ability to perform particularly well in some domain (Krosnick, 1990a). However, because a performance criterion is difficult to develop in the domain of political cognition, most researchers have adopted the view that political expertise represents not a single dimension, but a constellation of qualities. Specifically, this concept has been measured as interest in politics, exposure to news and political information, behavioral participation in political events, and political knowledge. While some argue that these are all indicators of a single underlying factor (e.g., Judd and Downing, 1990; McGraw and Pinney, 1990), others have suggested that these "components" are, in fact, separate factors that represent their own concepts (e.g., Fiske, Lau, & Smith, 1990). Zaller (1990) has argued forcefully that expertise is best operationalized by measures of political knowledge. He maintains that knowledge represents a long-term interest and attention to politics and, more importantly, experts have greater knowledge and experience to draw upon to interpret and react to new political information. This method is, in fact, the standard way expertise has been measured in communication research (e.g., Hamill, Lodge, & Blake, 1985; Hsu & Price, 1993; Iyengar, Kinder, Peters, & Kronsnick, 1984; Judd & Krosnick, 1989; Lau & Erber, 1985; Lodge & Hamill, 1986; Lodge, McGraw, & Stroh, 1989). Consequently, for the purposes of this paper, political expertise will represent the general ability to interpret and understand a broad range of public policy issues. This ability derives from superior general knowledge about, and interest in political messages in the news.

Differences between Experts and Novices

Political psychologists have shown considerable interest and ingenuity in studying the effects of prior knowledge, by linking the concepts of expertise and schema sophistication (see Lau & Sears, 1986, for example). Experts and novices differ from each other not only in the amount of knowledge they have but also in the ways they "structure and organize it in memory" (Lau & Erber, 1985, p. 38). Krosnick (1990a) suggests that experts tend to view a set of information in terms of large organizing patterns, whereas novices tend to view each piece of information in isolation from the rest. In addition, experts tend to represent information at a deeper, more principled level in terms of broad categories, whereas novices tend to represent information at a more superficial level based on surface features. Moreover, experts spend a great deal of time analyzing a problem qualitatively before deciding which solution strategy to implement, whereas novices plunge quickly into a problem by applying mechanical strategies with little forethought about their potential for success. Experts also have more domain-relevant knowledge and they learn new information more quickly and easily than do novices.

Similar to Krosnick's (1990a) view, Fiske et al. (1990) suggest that expertise not only represents accumulated knowledge in a domain, it also includes well-structured and organized concepts, which are often termed schemas within the social cognition literature. Schemas are described as knowledge structures, based on experience, that organize people's perceptions of the world (Fiske & Taylor, 1984). Schema theory assumes that people actively construct their perceptions of reality on an on-going basis. Once activated, schemas become on-line information processing routines that allow receivers to construct meaning and thereby understand the world (Markus & Zajonc, 1985).

Researchers in social cognition as well as political cognition argue that expertise can influence how old information is used to understand new information. For example, Markus and her colleagues (Markus, 1977; Markus, Crane, Bernstein, & Siladi, 1982; Markus & Smith, 1981) have shown that the existence of various knowledge structures or schemas about the self facilitates the processing of information about the self on dimensions relevant to the schemas. This argument can be applied to the encoding of political news. Political novices, because they lack schemas about politics, usually process political information relatively slowly and tend to engage in on-line processing, whereas experts show larger selective memory effects (Fischer & Johnson, 1986). In other words, expertise can help in encoding information and help in judging what information is relevant. Nimmo (1990), for example, shows that political experts not only develop selection principles distinct from those of novices, but also use these principles to choose which news sources they are likely to monitor for political information.

Expertise also affects how people recall (i.e., store and retrieve) information. Much research in political cognition (Fiske et al., 1983; Fiske, 1986; Lau, 1986) has shown that whereas the general public remembers schema-relevant information and tends to forget irrelevant information, political experts remember both schema-inconsistent as well as schema-consistent information. Fiske et al. (1983), for example, examined the recall of political experts and novices who had read an article about the political institutions in a country previously unknown to them. They found that experts recalled more information than did novices. Experts were also shown to recall more information that was inconsistent with their prior expectations.

Research on attitude change also suggests that experts may use more thorough processing strategies than do the uninvolved and the novice in dealing with persuasive messages. For example, the elaboration likelihood model (ELM; Petty and Cacioppo, 1986) postulates two basic routes of information processing to attitude change: a central route, based on the systematic and analytic elaboration of arguments; and a peripheral route, based on a reliance on simple cues in the message. The features that characterize central and peripheral routes are similar to the distinction between experts and novices. Experts, who have developed a greater cognitive capacity and are more involved in the thoughtful consideration of the persuasive messages, are more likely to be motivated than are novices to adopt a systematic processing strategy. Novices, on the other hand, have less complex schemas and are thus more likely to depend on peripheral cues. In voter psychology, political experts are assumed to carefully consider candidates' issues stands, whereas novices are assumed to rely on simple cues such as candidates' personality and party identification when making voting decisions.

Lau and Erber (1985) compared the information-processing differences between experts and novices during the 1980 U.S. presidential campaign and found that experts were more consistent in how they evaluated the candidates and in how they placed themselves on the issues. Novices, on the other hand, were less able to integrate new information with previous knowledge, thus their evaluations of political candidates were less likely to be based on issues. In a similar vein, Zaller's (1990) analysis of the 1972-1974-1976 National Election Studies also demonstrates that there tends to be less susceptibility to priming among the politically sophisticated (experts).

Taken together, the foregoing discussion suggests that the concept of expertise has begun to receive substantial scholarly attention. One possible avenue of future investigations is to examine the interplay between expertise and other psychological phenomena in news processing. A closer review of the literature reveals that the expertise research relies heavily on memory and perception and thus seems to overlook the role of affect in influencing news processing and news effect estimation. As a result, the following discussion focuses on the ways that affect and expertise interact to influence media information processing and judgments.

An Affect and Expertise Model

The preceding discussion of expertise and affect reveals that both the level of complexity of knowledge structures and the valence of affective states can influence cognitive processes and decision-making. Whereas findings on the influences of expertise and affect have been well documented, very few studies have attempted to integrate them in interpreting the individual differences of media message processing and subsequent effects. Nonetheless, the preceding review has suggested relationships between the two factors that should facilitate integrating them into a simple model of message processing. Such a model is given in Figure 1, below.

Figure One about here

As discussed above, since experts are more highly involved in any given news topic and/or possess more knowledge about the topic, they are more likely than novices to engage in analytic information processing. A substantial part of this elaborated processing involves the retrieval of similar or related cognitive categories which they can rely on to make their judgments. Thus, since experts are more likely to make judgments based on constructs activated from memory, it follows that they should be more sensitive to mood-priming effects than are novices. According to the mood-priming model, affect can serve as a retrieval cue for affect-consistent material in memory, influencing what comes to mind and thus influencing evaluation and judgments. For example, with exposure to a news event, if experts are in negative affective states, their negative feelings can activate other nodes or units in memory linked with both negative moods and constructs suggested by the news. As a result, other nodes affectively consistent with the negative moods and semantically consistent with the news will be activated. Of course, a similar result would be observed with respect to positive moods and their associated elements in memory.

On the other hand, since novices are less likely to engage in elaborated information processing and are likely to rely on heuristic cues to make evaluations and judgments, they may be more likely to rely on their current mood or emotional reaction toward the target to make evaluative judgments. The affect-as-information model suggests that people rely on their on-line feelings as they make evaluative decisions. Following this line of reasoning, as Figure 1 shows, when novices process a media message or form a judgment, they are likely to rely on their affective states to tell themselves how they feel about the object under consideration.

Finally, it should be noted that, under the affect-as-information model, individuals are assumed to perceive that their current feelings provide useful information upon which they can rely while making judgments. If individuals perceive that their feelings are biased, irrelevant, or useless, they will discount the informative value of their feeling. In this case, their on-line feeling will not exert an influence on their judgments.

Applying the Model: Implications for the Third-Person Effect

The general model presented here can be applied to a number of media consumption settings in which people are asked to form impressions and judgments. By way of illustrating how such an application can be accomplished, it would be worthwhile to work through the steps of model explication with an existing communication research topic. The third-person effect provides a useful forum for doing this because of its apparent ubiquity among people in society and due to its obvious theoretical underdevelopment. The discussion that follows will briefly review the current state of third-person effect theory and will explore how the operation of the effect may be influenced by the interaction of expertise and affect described in Figure 1.

The Theoretical Underpinnings of the Third-Person Effect Hypothesis

Davison's third-person conceptualization suggests that individuals tend to overestimate the impact of media messages on the attitudes and behavior of others and then behave in accordance with these estimates (Cohen and Davis, 1991; Davison, 1983; Gunther, 1991; Perloff, 1989).

Studies of self-other differences in response to media messages have proliferated since Davison's original proposition. A great number of recent studies investigating various aspects of the basic formulation have yielded findings consistent with Davison's (1983) third-person effect hypothesis. Most of them have demonstrated the discrepancy between perceptions of communication effects on others and on the self, such as effects of the mini-series "Amerika" (Lasorsa, 1989), the influence of negative political advertising (Cohen and Davis, 1991), news broadcasts of Middle East conflict (Perloff, 1989), effects of product commercials and public service announcements (Gunther and Thorson, 1992) and defamatory articles about prominent persons (Cohen, Mutz, Price and Gunther, 1988).

While most of the empirical findings support the third-person effect, some scholars have further attempted to explain the processes by which this effect is generated. They have found that the intensity of the third-person effect varies with a host of audience attributes such as education, age, expertise, involvement and pre-existing attitudes and message characteristics such as message bias. The following is a discussion of conditional determinants that have been specified by previous research.

Expertise, Ego-Involvement, Predispositions and the Third-Person Effect

To explain the differences between perceived message effects on oneself and others, Davison (1983, p.11) suggested, although did not test, the idea that people believe "others do not have the information that enables me to form a correct opinion." Davison (p.9) suggested that "we are all experts on those subjects that matter to us, in that we have information not available to other people." He observed that "other people do not know what we know. Therefore, they are more likely to be influenced by the media." From this perspective, the notion of expertise serves as an conditional variable to increase or decrease the estimation of perceived effects on other people.

Research efforts have produced support for the personal expertise explanation of third-person effects. Lasorsa's (1989) survey study examining the impact of the network television miniseries "Amerika," a political fiction about life in the United States after a Soviet takeover, found that perceived political knowledge rather than real political knowledge increased the third-person effect. People who think they know more about politics are more likely to resist influence by the message and to perceive others as more affected by message content. In a similar vein, Tiedge, et al. (1991) found that education was positively related to the discrepancy between first- and third-person impact of messages.

Perloff's (1989) experimental study of the impact of television news coverage of the 1982

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Arab-Israeli war in Lebanon found that pro-Israeli partisans were more likely than pro-Palestinian partisans to perceive that the news coverage was biased against Jews and would cause a neutral audience to feel less favorably toward Israel and vice versa. He concluded that "ego-involvement powerfully influences perceptions of communication effects" (p. 255).

In a similar vein, Cohen and Davis' (1991) experiment tested the relationship between one's predisposition toward negative political advertising and the differential effects. They hypothesized that if an individual "accepts" a message -- that is, if a political commercial portrays a favored candidate positively -- he/she would perceive that effects on the self but not on others. On the other hand, if an individual rejects a message -- his favored candidate is portrayed negatively in the political commercial -- he/she would perceive that the message has an effects on others rather than the self. Their findings support the strong tie between personal predisposition toward a message and personal attribution of whether the message will affect the self or others. All the above findings resemble what Davison (1983) observed when he wrote that people on both sides of an issue can see the media as biased against their own point of view and then report "a disproportionate effect" generated by media coverage supporting the "wrong" side of the issue. Davison (1983) also suggested that there is no third-person effect on the "right" side. He reasoned that perhaps that is because the facts supporting a person's opinion are not seen as persuasive, but merely as a reinforcement.

Perceived Message Outcome

The majority of third-person effect studies have used negative messages as stimuli. Messages such as defamatory stories, negative political advertising and news coverage about the Middle East conflict have been found to be particularly likely to elicit third-person effects. For example, Gunther and Mundy (1993) report that people estimate greater media effects on others than on themselves for message with harmful outcomes but that differences in estimates for beneficial messages are much less likely to occur. In addition, Gunther and Thorson (1992) observed the third-person effect with respect to advertisements, but not for public service announcements which are assumed to benefit the individual. In Gunther's (1991) study, the trustworthiness of the source of a defamatory newspaper article was manipulated to test the third person effect. Similarly, Cohen et al. (1988) varied intentions behind a message by attributing a defamatory story to a source either biased against or friendly toward the subject of the story. All studies found that biased content enhances perceptions of media effects on others. Thus, it appears that the third-person effect is likely to emerge when messages are perceived to advocate harmful outcomes and when the individual perceives that "it is not smart to be affected by that message" (Gunther and Thorson, 1992, p.61). Based on these findings, it seems safe to conclude that third person effects are not relevant to the consumption and potential effects of positive or neutral outcome news coverage.

The Third-Person Effect and the Expertise-Mood Model

Research on the third-person effect has not yet examined the role of affect in the process of media effect estimation on oneself and on others. To address this, we propose a theoretical model (see Figure 2) that delineates the mechanisms by which expertise and affect interact to influence the magnitude of the third-person effect. Along with the discussion, we suggest a number of propositions for future research in this domain.

Figure Two about here

First, based on the previous discussion, we would assume that expertise would determine the way mood is likely to influence information processing. It is assumed that whereas both experts and novices could be influenced by the valence of their affective states in processing news, novices are more likely than experts to use their mood as information. Experts, on the other hand, are more likely to engage in mood-congruent recall. Thus, we propose:

Expectation 1: For experts, affect is more likely to lead them to engage in mood-congruent recall; for novices, on the other hand, affect serves an informative function, in which the evaluative judgments are based on the implications of the mood state itself.

This proposition can be supported by evidence from several lines of research. First of all, the mood-congruency principle suggests that the increased accessibility of mood-congruent material in memory may lead to mood-congruent associations that may further influence evaluations of a target. Experts are more likely to engage in extensive information processing, and thus can retrieve more mood-congruent material in memory. Moreover, Schwarz's (1990) affect-as-information hypothesis suggests that individuals base evaluative judgments on the information provided by their affective responses. This seems particularly plausible when little other information is available, when the judgment is overly complex, or when it is too cumbersome to make a judgment on the basis of a piecemeal information processing strategy. Therefore, the affective state can serve an informative function to novices, for whom the world can cue little stored knowledge.

Thus, experts are presumed to retrieve more information, process information thoroughly and examine the different arguments presented in the news message. As depicted in Figure 2, experts' feelings serve as nominal guides in activating mood-congruent information and evaluations in memory. When experts are exposed to news which they do not accept, or which they think is biased or is likely to have negative consequences, those in negative moods will tend to retrieve more negative thoughts from memory than will those in positive moods. The negative thoughts activated could include negative thoughts about other people such as "people are gullible," and "people lack the ability to judge," and other negative thoughts semantically related to the subject of the news. It is also likely that other negative matters unrelated to the subject of the news but consistent with their bad moods could be activated. Also, their affective state

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can make them focus their attention on negative aspects of the stimulus message, and ultimately can bring them to think of the negative message as more negative. Given that negative thoughts dominate the memory recall when experts are making their effect estimations, negative moods would affect experts by resulting in greater estimated effects on both themselves and other people; but, with their expertise, experts still tend to perceive that this news message exerts a larger effect on others than on themselves. As a result, the third-person effect will still occur.

In a similar vein, as shown in Figure 2, if experts are in an elated mood, the positive mood helps retrieve positive thoughts. With positive thoughts coming to minds, the negative news may be perceived less negatively. Also, fewer negative thoughts related to the subject of the news message would be activated, and negative thoughts about people in general would be less likely to be triggered. As a result, the estimated message effects on both themselves and other people could become relatively smaller. But, because of their expertise, experts will still estimate larger effects on others than on themselves. Therefore, the third-person effect will still emerge.

It should be noted that, although experts in both negative and positive moods are presumed to exhibit third-person effects by estimating larger effects on others than on the self, the magnitude of the differential between self-estimate and others-estimate across both affective states should be similar. In negative moods, experts' effect estimates on both themselves and others will both move toward larger values indicating greater effects on both the self and others. And, in elated moods, their effect estimates will both move toward smaller values indicating smaller effects on both the self and others. In this way, affective state does not exert a main effect on experts' third-person effect differential. Rather, experts' mood influences their effect estimates on both the self and others by making both estimates move toward larger values or smaller values, but it does not influence the magnitude of the difference between the self-estimate and others-estimate. The difference between the self and others still exists for experts in both moods, but their moods do not influence the size of the difference. Thus, we suggest:

Expectation 2: Experts will exhibit the third-person effect by estimating larger message effects on others than on themselves, no matter if they are in negative or positive affective states.

Expectation 3: Experts' effect estimates on both themselves and others will be larger in negative moods than in positive moods, but the differential between self-estimate and others-estimate across negative and positive affective states should be of similar magnitude.

For novices, when they estimate message effects on themselves and on others, they may consult their feelings to estimate their perceived effects of the media message on themselves. With exposure to a negative outcome stimulus, novices ask themselves "how do I feel about it?" Since the media message describes a negative outcome in most third-person effect research, feelings toward the subject of the message tend to be negative by default. As a result, this negative feeling informs people that they themselves feel negative toward the subject and, consequently, they may use their negative feelings as an indication that they are, in fact, affected by this negative news message. As a result, compared to novices in good moods, they are more likely to admit that they themselves are actually affected. In this way, negative moods coupled with a negative message serve to increase the perceived effect on the self, and the difference between estimates of message effects on the self and on others will be decreased. Thus, we suggest:

Expectation 4: Novices will show a reduced tendency to overstate the gap between media message effects on themselves and others when they are in negative affective states relative to when they are in positive affective states. In other words, the third-person effect decreases when novices are in negative moods.

The effect pattern of positive moods for novices are more complex and are harder to predict. When novices are in elated moods and are exposed to a negative outcome message, the negative mood may or may not override their overall positive affective state. If the message does not affect their mood, novices are likely to rely on their current positive feelings to estimate the message effects on themselves. In this situation, their positive feelings inform them that they are not affected by this negative news, and so they may conclude that this negative news does not exert any effect on themselves. Under this circumstance, the third-person effect would still emerge. On the other hand, if negative feelings toward the negative news are generated during the exposure and turn individuals' moods from pleasant to unpleasant, a different outcome would be observed. When negative feelings from the exposure to the negative stimulus event override their original elated moods, novices who rely on their on-line feelings to make evaluations are likely to perceive that they themselves are affected, since their feelings will tell them they feel negatively. In this circumstance, the third-person effect could become less pronounced. Since it is unclear which outcome of exposure is more likely to occur, no firm set of predictions can be made here.

Affect, Expertise and Media Effects

Of course, this discussion of the interaction of affect and expertise has potential implications for message processing situations beyond the third-person effect. Other areas of current interest to researchers, such as media framing and priming, can also be examined within the framework of affect and expertise. For example, the model presented here suggests that individuals less involved in any particular issue are more likely to be persuaded by simple cues or on-line feeling presented in news stories about that topic. In a similar vein, Graber (1988) points out that individuals less involved in particular topics are more likely to be influenced by the manner of presentation of news stories. Since novices have less complex schemas to process and integrate new information, they can be more easily influenced than experts by the affective aspects of the news stories. Therefore, even if novices do not have strong feelings about the news events, their encoding, recall, and evaluation of the events will be influenced by the affective cues presented in the news stories.

One important element in the presentation of any event in the news is the "frame" journalists apply to the issue. Among all of the available ways to communicate the details of an event or issue, journalists regularly rely on a core set of story perspectives (Graber, 1993). Recent research on the effects of these standard frames suggests that how a story is told may affect audience perceptions of the represented issue (e.g., Iyengar, 1991; Iyengar & Simon, 1993; Price & Tewksbury, in press; Price, Tewksbury, & Powers, 1995). For example, this conception of framing has been applied to examine voters' attribution of responsibility concerning public policy issues (e.g. Iyengar, 1991). In addition, Iyengar and Simon (1993) found that when the events of Gulf War were presented negatively by the media, audience members' support for a military largely decreased. Accordingly, the frame selected by the news professionals to present an event or a person is important. It is likely that the news frame not only influences audience member's perception of issues or persons, but also triggers some feelings towards those issues or persons and those feelings influence their subsequent evaluations. Thus, framing a political issue or figure with affect-laden labels is important in political persuasion.

In this general body of literature, the frame tends to serve as a cue for the activation of knowledge and other elements in long-term memory (e.g., Price & Tewksbury, in press). It seems likely that factors such as expertise and affect, given their apparent influence on the style and depth of message processing, may influence the extent to which people rely on cues supplied by frames. Expertise, for example, ought to act as a general buffer against the effects of external cues and frames. Thus, the more expert news consumers ought to be less susceptible to their influence. According to Kinder and Sanders' (1990) evidence, political experts are much less susceptible to the influence of policy issue framing. Experts are found to provide their own frames and have highly solidified opinions on policy issues, whereas novices lack ready references and adopt whatever frame is most available at the moment of judgment.

The interaction between expertise and affect also offers potential leverage in explaining media priming effects that have recently been observed (e.g., Iyengar, 1987; Iyengar & Kinder, 1987; Iyengar, Kinder, Peters, & Krosnick, 1984; Krosnick & Kinder, 1990; Krosnick & Brannon, 1993). This body of work suggests that the news media, by calling attention to particular national problems while ignoring others, set the standard by which political evaluations are made. Iyengar et al.'s (1984) research has shown that people tend to evaluate the performance of the president based on the issues -- such as the economy or foreign affairs -- to which people are exposed prior to the evaluation task. In particular, priming researchers argue that, for most people, politics is not the top priority in daily life unless it is related to areas of personal expertise. Thus, when faced with a judgment situation, individuals tend to take intuitive shortcuts rather than perform exhaustive analyses. One such shortcut is reliance on the information that is most easily accessible, which is pervasively provided by the news media, especially television news (see Price & Tewksbury, in press, for a discussion of priming within a social cognition framework).

At first glance, it seems sensible to argue that novices will be more susceptible to media priming effects. When they are asked to evaluate political figures novices will tend to lack extensive knowledge of the figure. Consequently, the information most accessible at the time of the judgment is particularly likely to be used. For example, if novices are exposed to a negative news event such as a high unemployment rate before they evaluate the U.S. president, their evaluation standard is particularly likely to be influenced by that negative news and thus they are likely to rate the president negatively.

At the same time, Krosnick and Brannon (1993) have argued that with a relatively larger store of information, experts should be the group that is *more* susceptible to priming effects. They reason that since the priming process is essentially one of heightened accessibility, experts should be better able to efficiently process and store information such that it is readily accessible at a later time. People with less political information, on the other hand, will be less efficient in processing information, storing it, and recalling it when later prompted to do so. Thus, novices should be less likely to use recently acquired priming material, and experts should be more likely to use primes.

Cutting across both of these predictions is the mood factor. If, as Krosnick & Brannon (1993) suggest, experts are more likely to recall information that has been primed during media exposure, the focus of inquiry should then shift to the valence and evaluative implications of constructs that are being primed and later activated. Figure 1 would suggest that the retrieval process for experts should be guided to some degree by their current affective state. Experts in positive moods should tend to recall information that is associated with positive affect and those in negative moods should do the same for negatively valenced information. Thus, when considering the role of affect, it becomes clear that the priming process here is more than just a matter of activating the most accessible information. Rather, it is a process of activating accessible constructs that also match the most current mood on some level. Given this conclusion, it would appear that the presence of strong moods may tend to attenuate the effect of media primes. Similarly, when the mood is itself a reaction to some media stimulus, the priming outcome becomes an interaction process between news content, expertise, and active mood. Clearly, more research and theory development in this area is needed.

Taken together, the processes by which mass media effects occur are often, in fact, more complex than they seem to be on the surface. Although media effects research has been growing since the advent of communication studies, much of the research still focuses on a direct causal relationship between media content and consequent attitudinal and/or behavioral changes. As noted above, the roles of affect and expertise and their interactive influences on media effects, including aggression, agenda-setting, framing, priming, cultivation, and the third-person effect, have not been systematically examined. Taking these two important factors into account and integrating them into a single model may help clarify the processes by which media effects occur.

Summary and Conclusion

The primary purpose of this paper has been to present a model of the influences of affect and expertise on media effects processes by synthesizing relevant literature in social cognition, psychology and mass communication. The paper began with a review of the affect and expertise literature. Recent studies in social cognition have shown that experts and novices differ from each other in the ways they encode, store, retrieve, and evaluate information. Normally, experts have a more complexly organized knowledge structure than novices that allows them to differentiate between congruent and incongruent information, remember both schema-consistent and inconsistent information, and recall information more accurately. Experts are also more likely to engage in more effortful, analytical piecemeal information processing, whereas novices are more likely to rely on heuristic cues to make evaluative decisions.

The elaboration of the critical features surrounding affect represents an effort to move away from strictly "cold" cognitively based models toward a "warmer" approach to information processing and mass communication. Scholars (e.g., Garramone, 1992) have pointed out that some "hot" factors such as motivations, values, or moods seem to have been overlooked by previous research on information processing. Recent research in social psychology suggests that affect and cognition are independent as well as interactive processes. The influences of affect on cognitive activity differ in terms of the valence of the affect and its informative value, as has been illustrated by the two major emotion theories considered here, the affect-priming and affect-as-information models.

An integration of the literature dealing with expertise and affect suggests that future research can further explicate different conditions (e.g., extent of expertise, intensity, and valence of affect) under which affect and expertise interact to affect the magnitude of the third-person effect. The model we suggest postulates that experts are more likely to adopt a more careful thinking strategy when processing news, whereas novices are more likely to be influenced by heuristic cues, one of which, presumably, could be on-line feelings. Thus, as the model developed here shows, experts are more likely to be influenced by the mood-priming process, whereas novices are more likely to be influenced by the affect-as-information process. Drawing upon this model, this paper has suggested some specific, testable expectations about the interactive influence of affect and expertise on estimates of media effects on oneself and on others. We have also offered some broad suggestions for how our model may be applied to exploring other media effects such as media framing and priming which are currently being studied in the field.

Overall, whereas communication researchers have come a long way in addressing the cognitive mechanisms of mass communication processes and effects, individual differences in the level of expertise as well as the extent and valence of affective states have not been systematically addressed. Discussion in this paper implies that future research can further explicate the different conditions under which affect and expertise interact and influence the processing of media messages. Studies in this line of research will provide new insights for a better and more precise understanding of mass communication effects.

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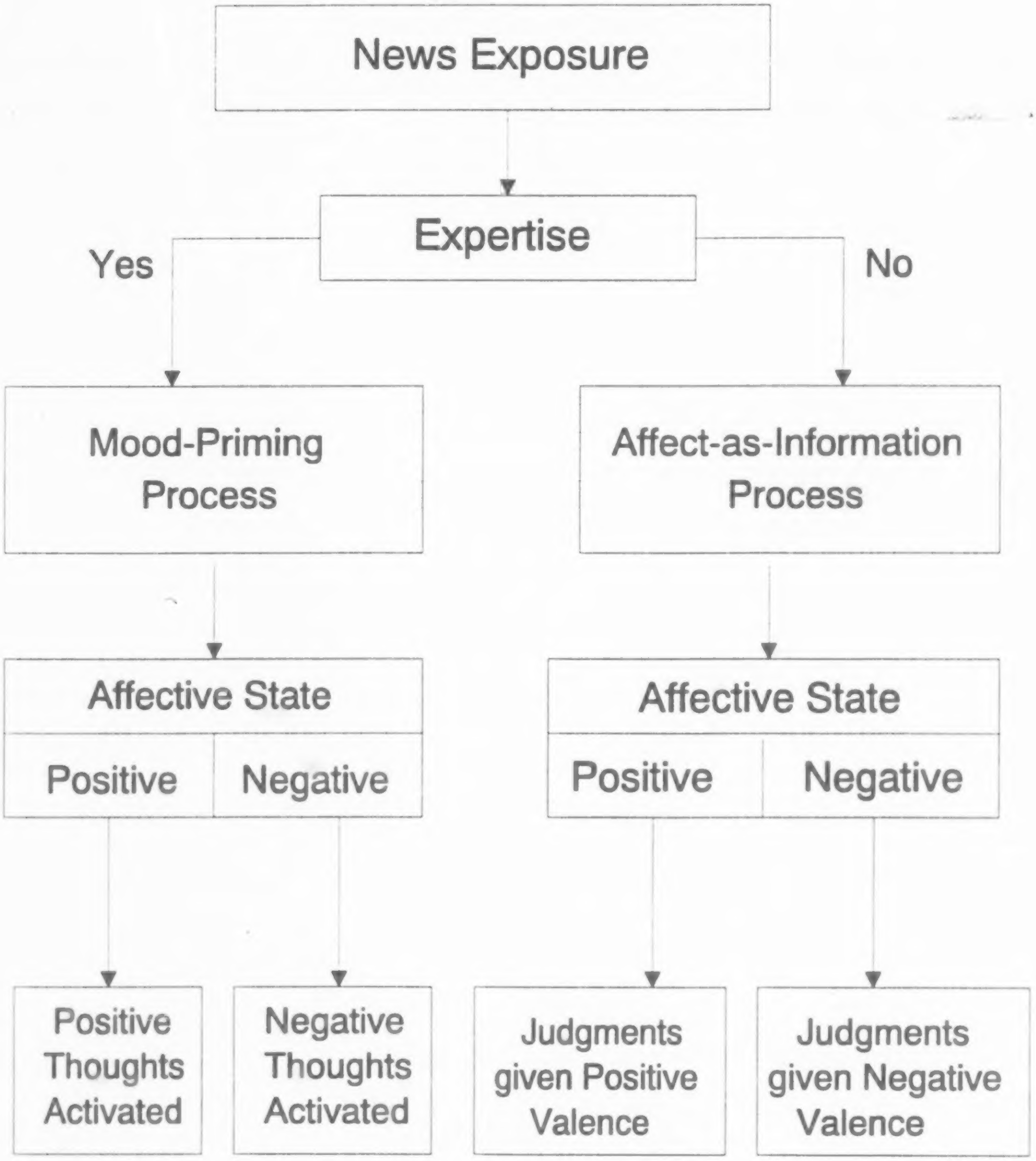
News Exposure
Expertise
Yes
No
Mood-Priming Process
Affect-as-Information Process
Affective State
Positive
Negative
Affective State
Positive
Negative
Positive Thoughts Activated
Negative Thoughts Activated
Judgments given Positive Valence
Judgments given Negative Valence

Figure 1: A Model of the Roles of Expertise and Affect in Media Message Processing

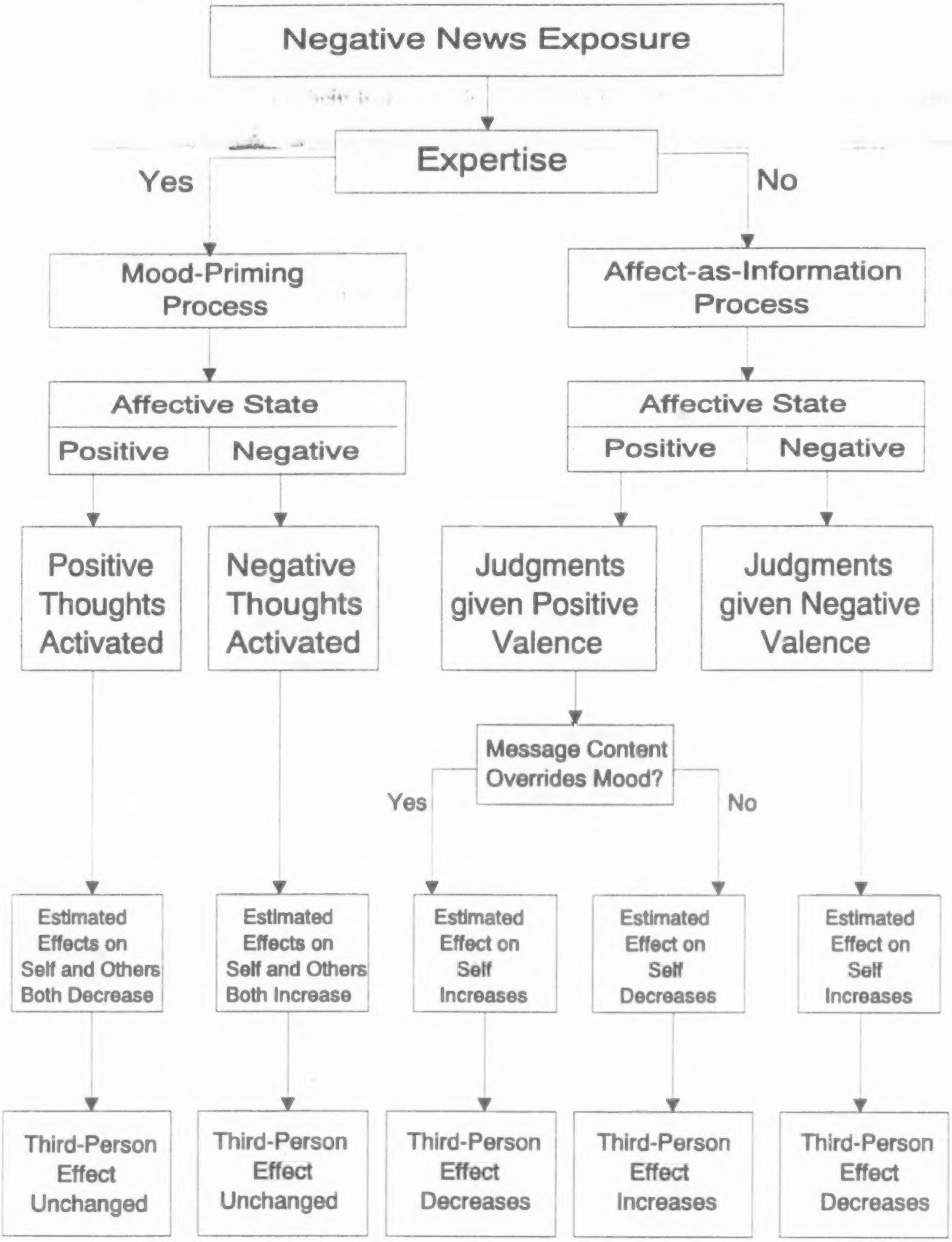
Negative News Exposure
Expertise
Yes
No
Mood-Priming Process
Affect-as-Information Process
Affective State
Positive
Negative
Affective State
Positive
Negative
Positive Thoughts Activated
Negative Thoughts Activated
Judgments given Positive Valence
Judgments given Negative Valence
Message Content Overrides Mood?
Yes
No
Estimated Effects on Self and Others Both Decrease
Estimated Effects on Self and Others Both Increase
Estimated Effect on Self Increases
Estimated Effect on Self Decreases
Estimated Effect on Self Increases
Third-Person Effect Unchanged
Third-Person Effect Unchanged
Third-Person Effect Decreases
Third-Person Effect Increases
Third-Person Effect Decreases

Figure 2: A Model of the Roles of Expertise and Affect in the Third-Person Effect

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The Interplay Between Affective States in News Processing: An Examination of the "Warmer" Side of Audience Activities

by

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The Interplay Between Affective States in News Processing: An Examination of the "Warmer" Side of Audience Activities

ABSTRACT

This study aims to examine in individuals' processing of various affect-eliciting message stimuli, whether changes of the affective states are better explained by the opponent process or excitation transfer assumptions. The study also seeks to investigate how valence of individuals' initial affective reactions, sex differences, issue salience of subsequent media message, independently and jointly, lead to predictable changes of individuals' affective states. The study employed a 2 x 2 x 2 experimental design. The independent variables were initial affective state (positive vs. negative), sex (male vs. female) and issue salience of the subsequent news story (high vs. low). The main dependent variable was affective evaluation of the subsequent story . Two hundred and sixty undergraduate students from a state university in Taiwan participated in the experiment. Subjects were randomly assigned to the positive or negative affect condition, as well as to a news story of high or low salience. The experimental results showed that subjects' affective reactions to the affect-eliciting news stories influenced how they reacted to the subsequent issue stories affectively. Subjects first assigned to the negative affect condition did not feel as negative as those assigned to the positive affect condition, when both of them continued to read the issue story with a slightly negative tone. The interaction between the preceding and the subsequent affective reactions reveals a function of the opponent process of affect, and the effect is more manifest in female students than in their male counterparts. Issue salience of the news story, however, did not have a significant effect on subjects' affective reactions.

The Interplay Between Affective States in News Processing: An Examination of the "Warmer" Side of Audience Activities

I. Introduction

This study explores how individuals' affective reactions induced by initial media messages might affect their affective evaluations of subsequent messages.

The last decade of mass media research has been marked by a gradual shift toward examining what Lippman (1922) called the "pictures in our head." Rather than focusing solely on the cognitive effects media messages exert, as did researchers in the 1970s (see Becker, McCombs, & McLeod, 1975), mass communication researchers are now interested in investigating the processes by which these effects are achieved. These processes include attention, perception, comprehension, elaboration, short-term memory and long-term retention (Gunter, 1987). The emphasis on the cognitive perspective of mass communication allows us to investigate explicitly how people think and the differences among individuals in their thinking processes (Hsu, 1992).

The cognitive approach to message processing is tied very closely with the "schema" concept. Simply put, a schema is a knowledge structure, based on experience, that organizes people's perceptions of the world (Fiske & Taylor, 1991). Schema theory assumes that people actively construct reality. Once activated, schemas become ongoing information processing routines that allow the perceiver to provide and to achieve meaning and understanding (Markus & Zajonc, 1985). The schema-based approach to studying differences in information processing has enriched our conceptualization of mass communication effects and inspired new lines of research.

However, a closer review of research literature in this area (Lau & Erber, 1985) reveals that individuals are generally regarded as "rational" thinkers processing media messages (Hsu, 1992). The assumptions made in the schematic processing approach reflect the predominant "cold" perspective of social cognition research in the 1970s (Garramone, 1992). Other "hot" factors, such as motives, values, or moods, which have to do in various ways with individuals' affective states, have been largely overlooked (Hsu & Price, 1993). There are good reasons to expect that affect has implications for information processing. One's affective orientations may influence the kinds of schemas applied to stimuli, for example, and strong arousal appears to interfere with one's effective employment of complex schemas (Crocket, 1988). It is thus crucial to explore the roles that affect plays in individuals' processing of media messages, and to enhance our understanding of the warmer side of the audience activities.

Affect is a generic term for a whole range of feelings, moods, and emotions. Feelings include relatively mild subjective reactions that are essentially either pleasant or unpleasant, such as attraction, liking, and disliking. Moods refer to pervasive, global, generalized affective states that influence seemingly nonspecific affective events. Emotions refer to a more complex assortment of affects than simply good and bad feelings, such as sadness, anger, delight and serenity (Isen, 1984; Fiske & Taylor, 1991; Batson, Shaw, & Oleson, 1992). As most literature on affect does not specifically distinguish between these three general types of affective states, this study will stick to the generic term "affect," as commonly used in research literature.

Most theories on the functioning of affect focus on the influences of affective intensity or valence (i.e., positive vs. negative affect) on subsequent cognitive activities (Fiedler & Forgas, 1988; Isen, 1984; Schwarz, 1990). Very few studies, either in psychology or communication, have come to tackle the interactions of individuals' various affective states. As there exist in message processing various affective reactions generated or induced by the message stimuli, individuals' overall evaluations of their affective states can be perceived as a consequence of the interplay between these affective reactions. The study thus endeavors to examine how these various affective states or reactions interact with each other in processing mass media messages.

The extent to which various affective states interact also differs by individual. Among the antecedents to affective interactions, "sex" appears to be a predominant one, as has well been documented in the cognitive psychological literature. Furthermore, media researchers have pointed out that issue salience of the media messages might influence individuals' cognitive activities such as forming attitudes and evaluations (Watt, Mazza, & Snyder, 1993). Whether issue salience of the message could have an impact on individuals' affective interactions remains yet unexplored. Based on these assumptions, the study investigated the processing of media messages, and how

383

men and women differ in the interplay between these various affective states. The study also examined how messages differing in their issue salience to the processing individuals might interfere with the affective interaction activities.

II. Review of the Literature

The conceptual framework and theoretical foundations of the study draw mainly from the following three areas of research: psychological literature on how affective states interact with each other, sex differences in affective experiences, and the influences of issue salience of media messages.

1. Interactions of Affective States

This section will illustrate the assumptions and literature of two important theories concerning the interactions of affective states, namely, the "opponent process" (Solomon & Corbit, 1973) and "excitation transfer" (Zillmann, 1979) theories.

A. Opponent Process

Opponent process theory was first proposed by Solomon (1980, 1991). This theory attempts to explain "hedonic contrast": the tendency for affective states to be followed by states of "opposite" hedonic tone. That is, when an individual processes information, his or her initial affective response to the message stimuli would activate an opposing process that tends to return the individual to hedonic neutrality (Mauro, 1992).

Specifically, opponent process theory assumes that the individual's manifest affective reaction is the result of the operation of two processes: the "a-process," referring to the initial affective state, and the "b-process," referring to the affective state opposite in hedonic tone to the a-process. The a-process is closely linked in magnitude and duration to the initial affect-eliciting stimuli, whereas the b-process is triggered by the activation of the a-process. Because the b-process lingers, an affective or hedonic contrast is often observed following the end of an affect-eliciting message (Mauro, 1992). In other words, an individual exposed to the positively toned stimuli may initially feel positive (the a-process). After a while, an opposite affective state (b-process) is triggered, attempting to bring the individual to baseline. Likewise, initial negative affect may trigger positive affect during an individual's affective experience.

Opponent process theory has been used to explain affective contrast effects in humans who were skydiving (Solomon, 1980), suffering from opiate (Wikler, 1973), alcohol (Shipley, 1982), or cigarette (Pomerleau, 1979; Solomon & Corbit, 1973) addictions; giving blood (Piliavin, Callero, & Evans, 1982); taking tests (Craig & Siegel, 1979); and experiencing changes in job satisfaction (Landy, 1978). For example, novice individuals who engage in addictive or dangerous activities may feel intense fear, but afterwards, the pleasant after-reaction grows. Opponent process theory has also been applied to animals' (e.g., ducklings, rats, dogs and monkeys) various affective activities such as distress calling, shock avoidance and separation distress (Hoffman & Solomon, 1974).

B. Excitation Transfer

Another important theory that addresses the affective interaction activities is excitation transfer theory, as proposed by Zillmann (1978, 1983). According to the excitation transfer theory, an individual's nervous system arousal elicited by an event may be transferred to subsequent events, and thus may affect the intensity of subsequent emotional response. If another event occurs during this period, the individual may misattribute the cause of the arousal to the latter event, and his or her emotional response to that event may then be enhanced (Mauro, 1992).

The assumptions made in the excitation transfer theory have been supported by various empirical findings, particularly in research on how sexual arousal elicited by watching pornographic media may enhance subsequent aggression (Donnerstein & Hallam, 1978). For instance, Zillmann (1978) has shown that if an individual is first sexually aroused by watching the pornographic film, and then becomes angry at the following event, he or she may attribute the cause of the physical arousal entirely to the second event. Other areas of research applying excitation transfer theory include how fear may increase sexual attraction (Dutton & Aron, 1974); how feelings generated by sexual or aversive arousal may speed up liking for music or humor (Cantor, Zillmann, & Bryant, 1975; Cantor & Zillmann, 1973); and how physical exercise may enhance feelings of anger or aggression (Zillmann, Katcher, & Milavsky, 1972).

Nevertheless, there are research results that suggest limits for excitation transfer theory. In other words, sometimes both hedonic tone and excitation transfer (Cantor & Zillmann, 1973), but sometimes excitation does not transfer. Mauro (1992), by summarizing research evidence regarding excitation transfer, indicates that given any two emotional responses, it is important to further distinguish between the physiological differences involved. During an emotionally arousing event, if the individual is not able to correctly identify the source of his or her arousal, the physiological arousal as well as cognition from a previous event may lead to an enhanced emotional response to the latter event. However, if there are noticeable physiological differences existing in the emotional responses to the two events, no excitation transfer would occur.

To sum up the aforementioned discussions, both opponent process and excitation transfer theories concentrate on the psychological and psychophysiological changes that occur after the initial affective response begins and continues after it ends, and they provide models explaining the dynamics of affective interactions. Whereas opponent process theory was developed to explain why emotional experiences are frequently followed by affective states of opposite hedonic tone, excitation transfer theory was developed to explain how an emotional experience can enhance the emotional response to subsequent events (Mauro, 1992). This study designed a project to test in individuals' processing of two sets of affect-eliciting message stimuli, whether the changes of affective reactions can be better interpreted by the opponent process or excitation transfer assumptions.

2. Sex-Affect Relationship

Assertions about how men and women differ emotionally abound in the psychological literature. Although research findings concerning sex differences in affect appear inconsistent, they share at least one conclusion in common: To the same level of the affect stimuli, women generally feel and express more strongly than men do (Cameron, 1975; Braun, 1977; Mitchell, 1974; Strouse, 1974; Buck, 1975; Miller, 1976; Kemper, 1978; Lewis, 1976, 1983; Masters, 1981; Brody, 1985). That is, women are more sensitive than men to the affect-eliciting stimuli (Mackie, 1980); women's facial expressions are more diverse than men's (Buck, Baron, & Barette, 1982; Buck, Miller, & Caul, 1974; Hall, 1979); women are better than men in discerning non-verbal affect stimuli (Hall, 1978; Rosenthal & DePaulo, 1970); women are also more willing than men to admit their affective states (Gilbert, 1969) and to discuss their affective experiences (Demos, 1975; Lutz, 1980).

The sex differences found in affective experiences seem to be more pronounced when considering positive affect (e.g., Rehm, 1978; Fujita et al., 1991; Allen & Haccoun, 1976; Taylor & Hinds, 1985). Negative affect, on the other hand, presents a less consistent picture of sex differences. A further examination of the literature, however, reveals the following findings: Women generally exceed men on self-reports of emotions that are intropunitive, such as shame, guilt, sadness, fear, and anxiety; outward-directed negative affect, such as anger and contempt, seems to be felt more by men than by women (Brody & Hall, 1993).

Sex-differentiated affect demonstration also varies by age, cognitive capacity and context. Although findings concerning sex differences in infants' and pre-schoolers' affective reactions remain inconclusive, male's affective expressivity is found to decrease faster than female's by age (Buck, 1980). Furthermore, LaFrance & Banaji (1992) point out that when affective experiences are elicited by social or interpersonal interactions, women's affective intensity is greater than men's. This means that affective expressivity can be an acquired social behavior. Theories on sociology in affect development, social learning and cognitive development all emphasize the importance of social context in individuals' affect development (Schachter & Singer, 1962; Stroufe, 1979; Piaget, 1981; Lazarus, 1982; Greenberg & Mitchell, 1983: Shields, 1991). Through the socialization process, women are encouraged to learn to express affect through words and facial expressions (except anger, disgust, and related affects such as contempt), whereas men are discouraged from doing so (with the possible exception of anger) (Brody & Hall, 1993).

These sex differences in affective experiences are contingent upon the measurement strategies of affect. If one focuses on the experiential component and relies on self-report indicators, if one is asked directly, if the affective domain is observable, and if the question concerns global emotionality, sex differences are there. That is, women may appear more emotional than men do.

Otherwise, sex effects are either nonexistent or inconsistent (LaFrance & Banaji, 1992).

Based on the foregoing discussions, women do show and report more affective reactions than men do. This is particularly true when it comes to positive affect, and negative affect that is intropunitive in nature, when affect is measured directly, and when it concerns the overall affective state. However, most literature on sex differences in affect tends to deal with the affective reactions to one single event or stimulus. An intriguing question thus remains as to what role the sex differences may play in the interplay between various affective states. The study elaborates on what is documented in the literature on sex-affect relationships and tests its theoretical assumptions in individuals' processing of various affect-elicited message stimuli.

3. Issue Salience of Media Messages

As mentioned previously, issue salience of the media messages might influence individuals' cognitive activities such as forming attitudes and evaluations (Watt, Mazza, & Snyder, 1993). For example, in comparing public opinion polls and magazine coverage on fluoridation and nuclear power from 1950 to 1975, Mazur (1981) found that the increased issue salience of the topics resulted in negative public opinion. Similarly, in a 7-year study in Louisville, Kentucky, Smith (1987) found that the amount of newspaper coverage of various issues correlated over time with both higher levels of public concern over these issues and more negative evaluations of government services. Becker & McLeod (1976) conducted a 1972 election survey in Madison, Wisconsin, and they also found that those voters who considered honest in government and the Vietnam war more important than crime and world leadership were less likely to prefer Richard Nixon over George McGovern for president.

Although the relationship between issue salience of media messages and the message receivers' emotional reactions remains unknown, it will be interesting and worthwhile to test whether individuals exposed to media message of higher issue salience will also result in stronger emotional responses than those exposed to media message of lower issue salience..

III. Research Questions and Hypotheses

The present study seeks to examine in individuals' processing of various affect-eliciting message stimuli, whether changes of the affective states are better explained by the opponent process or excitation transfer assumptions. The study also investigates how valence of individuals' initial affective reactions, sex differences, issue salience of subsequent media message, independently and jointly, lead to predictable changes of individuals' affective states. Specifically, the following hypotheses are put to test.

Hypothesis 1a: When processing messages that change from positive (initial) to slightly negative (subsequent), individuals' affective reactions to the subsequent message will be more negative than when processing messages that change from negative to slightly negative (opponent process assumption).

Hypothesis 1b: When processing messages that change from negative (initial) to slightly negative (subsequent), individuals' affective reactions to subsequent message will be more negative than when processing messages that change from positive to slightly negative (excitation transfer assumption).

Hypothesis 2: When processing a media message that is slightly negative in tone, women's affective reactions are more likely to be stronger than those of men's.

Hypothesis 3: Individuals' affective reactions to the high-salience media message are more likely to be stronger than to the low-salience one.

Hypothesis 4: When processing various affect-elicited media messages, women's changes of affective reactions are greater than those of men's (interaction effect of initial affect and sex) .

Hypothesis 5: Among both men and women, individuals' changes of affective reactions are more likely to be greater when issue salience of the subsequent message is a higher one (interaction effect of initial affect and issue salience).

Hypothesis 6: Given the same valenced initial message stimuli, women's affective reactions to the subsequent message are more likely than men's to be influenced by its issue salience (interaction effect of sex and issue salience)

Hypothesis 7: Individuals' affective reactions to the initial media message, sex differences, and the issue salience of the subsequent message will all interact with each other, resulting in various affective reactions to the subsequent message.

IV. Method

To test these hypotheses, an experiment was conducted in which the effects of combinations of different affect-eliciting messages could be directly observed. This was done by manipulating subjects' affective states through viewing either a series of positive or negative television news stories, and then observing subjects' reactions to subsequent slightly negative stories.

1. Subjects

The study employed 260 undergraduates from a state university in Taipei, Taiwan as subjects (133 males and 127 females). They were recruited from large lecture classes and were told by the experimenter that the study involved watching and then recording reactions to a few news stories. Each subject was provided with a souvenir as compensation for their voluntary participation.

2. Design

The experiment consisted of a 2 x 2 x 2 design. The independent variables were initial valence of affective state (positive vs. negative), sex (male vs. female), and issue salience (high vs. low salience). Subjects were distributed as follows: positive affect/male (high salience, n=30; low salience, n=41); negative affect/male (high salience, n=33; low salience, n=29); positive affect/female (high salience, n=31; low salience, n=30); negative affect/female (high salience, n=39; low salience, n=27) (See Table 1).

Table 1: Experimental Design

1a. positive affect condition

	issue salience	
sex	**high**	**low**
male	**n=30**	**n=41**
female	**n=31**	**n=30**

1b. negative affect condition

	issue salience	
sex	**high**	**low**
male	**n=33**	**n=29**
female	**n=39**	**n=27**

3. Measurement of Independent Variables

A. Initial Valence of Affective State

This independent variable was manipulated via a set of initial news stories that induced subjects' positive or negative mood before their exposure to the negatively toned story on a protest by fishermen or a crackdown on underground radio stations. Subjects were randomly assigned to either a positive or a negative affect condition. In each condition, they were first shown a few affect-inducing news stories, and were then asked to rate their current mood states.

To select stories that could best elicit subjects' positive or negative feelings, multiple news stories recorded from Taiwan's three big TV network newscasts from May to August, 1995, were pretested. Affect-rating scales were adapted from the Mood Adjective Check List (MACL; Nowlis, 1965), a method used widely and effectively in a number of psychological studies to measure moods (see Lorr, 1989, for a review). Following exposure to the affect-inducing news stories, pretest subjects were presented with a list of 20 adjectives describing various mood states, each to be rated on a 7-point scale from 1 = "definitely do not feel" to 7 = "definitely feel." The 10 adjectives used to measure positive affective responses were *cheerful, at ease, delighted, satisfied, amused, happy, lovable, pleased, fond of,* and *relaxed.* The measures of negative affective responses were *angry, pitiful, depressed, disappointed, disgusted, heavy, frustrated, miserable, sad,* and *horrible*. The positive and negative affect adjectives were mixed together to avoid order effects. Responses were combined and averaged to create separate positive and negative affect indexes, each ranging from 1 to 7.

Generally, the news stories used to induce positive affect were human interest in nature, whereas the stories used as negative affect manipulation involved human crime or tragedy. An independent sample of 91 subjects participated in the pretest and watched three sets of positive news stories or 4 sets of negative ones. According to the pretest findings, the following set of positive stories elicited the strongest positive affect: (1) a mother whale giving birth to her baby whale; (2) a mother beaver helping weigh her baby beavers; (3) a monkey holding a cat to the tree; and (4) a mother duck leading her duckling to hide in a safe place (M for positive affect = 5.38; M for negative affect = 1.67; t[47] = 15.25, $p < .001$). These four news stories were selected as the positive affect stimuli for the experiment. The set of negative stories which elicited the strongest negative affect included: (1) a mother crying over her 11-year-old daughter who became a prostitute; (2) a father beating his 5-year-old son and making him be in the street; (3) a man killing family members in a fire due to an affair with his sister-in-law; and (4) a truck driver hitting and raping a teenage girl (M for positive affect = 1.54; M for negative affect = 5.04; t[42] = -19.67, $p < .001$). Both the positive and negative sets of affect manipulation stories were about 4 minutes long.

The main experiment employed two checks of the affect manipulation. First, subjects were asked to rate their current mood states using the aforementioned 20-adjective list. Subjects were also asked to indicate on a 7-point scale where 1 = "extremely bad," and 7 = "extremely good," how they felt generally at that time. The affect manipulation would be considered effective if subjects' affective responses corresponded to the valence of the affective stimuli presented in their assigned conditions.

B. Issue Salience

This study intended to select issues that were conflicting in nature and without strong pre-existing opinions, but differed in their salience to the subject population. Issue salience was measured by combining two questions: (1) "Have you read, seen or heard of any news stories about the issue?" (0 = "no," 1 = "yes"); and (2) "If yes, how much have you thought about this issue?" (from 1 = "not at all" to 7 = "very much"). Responses to the latter question were recoded into 0 = "little" and 1 = "a lot" with a median split at 4.

Initial pretests employing a convenient sample of 124 college undergraduates were conducted to select issues for the study. Each pretest subject received a questionnaire with summarized transcriptions of six news issues and was surveyed about his or her thoughts, opinions, and knowledge regarding these issues.

Two issues, differing in their salience to the subject population, were selected for use in the experiment: one on a protest against a ban on employing mainland Chinese fishermen (low salience); the other on a crackdown of underground radio stations in Taiwan (high salience). The former issue had appeared in the television news only twice during the four-month time period of issue selection; whereas the latter issue had been highly politicized as a prominent one during the same period of time.

Results showed that among the 6 issues, pretest subjects held relatively moderate opinions about both the aforementioned fishermen protest and radio station crackdown stories (M for fishermen protest = 3.77; M for radio crackdown = 4.08; t[124] = -1.44, n.s.; both on a scale from 1 = "strongly oppose" to 7 = "strongly favor"). Nevertheless, subjects reported that they had heard about and had thought somewhat more about the crackdown on the underground radio stations than the fishermen protest (on a 0-2 scale, M issue salience for radio = 1.31; M issue salience for fishermen = .97; t[103] = 3.40, p < .001).

4. Measurement of Dependent Variable

Affective Evaluation

The main dependent variable measured in the study was affective evaluation, that is, subjects' ratings of their affective states after viewing the news story of high or low salience. To be comparable with their affective states prior to exposure to the issue-related news story, subjects' after-exposure affective evaluations were measured by two of the scales used for checks of the affect manipulation, including an overall affect score, formed by subtracting the negative affect index from the positive affect index (higher scores reflect stronger positive affect) and a 7-point scale indicating subjects' general feeling states.

5. Procedure

The experiment was conducted in several small-group (less than 30 subjects each) sessions from October to November, 1994, and each small-group session lasted about one hour. The experiment began with general instructions and collection of consent forms from subjects. Each subject was then handed a questionnaire booklet to complete. Subjects were first asked to watch a set of 4 positive stories or 4 negative stories. Showings of these stories in the small-groups were distributed randomly, and the order of the affect-inducing stories in each condition was rotated across groups to help eliminate order effects.

After viewing the affect-inducing news stories, subjects were asked to rate their current affective states on the first part of the questionnaire. After the manipulation checks, subjects in each condition were shown a news story on the fishermen protest (low-salience issue) or on a crackdown of the underground radio stations (high salience issue). Again, the two issues were randomly distributed across groups. Subjects were then asked to rate their affective states on the second part of the questionnaire. Finally, subjects were asked to complete the third part of questionnaire, which consisted of items on issue salience, issue importance, personal interest, experience, opinion, and related background demographics such as age, sex, academic major, and class level. Following the study, a debriefing session was given in which the experimenter probed for suspicions concerning the procedure and explained the exact purpose of the study.

V. Results

1. Manipulation Checks

A. Affect Induction

To test whether the intended mood states had been successfully induced by the manipulation of showing of the initial news stories, a principal components analysis with varimax rotation was first performed on the responses to the 20 MACL items. All the 20 items were heavily loaded on the first factor with an eigenvalue as high as 16.86, which accounted for 84.3% of the total variance and clearly reflected a positive affect versus negative affect dimension. The first factor was thus retained for further analysis.

The 10 adjective items with positive loadings -- *cheerful* (.98), *at ease* (.96), *delighted* (.99), *satisfied* (.91), *amused* (.95), *happy* (.99), *lovable* (.99), *pleased* (.99), *fond of* (.97), and *relaxed* (.95) -- were combined and averaged to create a positive affect index. Conversely, the negative affect index was composed of the mean ratings of the other 10 items with the negative loadings -- *angry* (-.94), *pitiful* (-.87), *depressed* (-.86), *disappointed* (-.89), *disgusted* (-.77), *heavy* (-.87), *frustrated* (-.78), *miserable* (-.90), *sad* (-.93), and *horrible* (-.82). The reliability of each index was also computed, and the results indicated that the selected items were quite adequate measures of subjects' positive affect (coefficient α =.99) and negative affect (coefficient α = .98).

Table 2 presents the mean affect scores for subjects assigned to the positive and negative affect conditions. As can be seen, subjects in the positive affect condition rated their mood as significantly more positive than did subjects in the negative affect condition (M on a 7-point, positive-affect scale for positive condition = 5.86; M for negative condition = 1.62; t[137] = 23.04; p < .001). Conversely, subjects assigned to the negative affect condition saw themselves as significantly more negative than in the positive affect condition (M on a 7-point, negative-affect scale for positive condition = 1.13; M for negative condition = 5.63; t[129] = -43.22; p < .001). An overall affect score, formed by subtracting the negative affect index from the positive affect index (higher scores reflect stronger positive affect) also indicated that subjects in the positive affect condition felt more positive than did subjects in the negative affect condition (M for positive condition = 42.37; M for negative condition = -45.08; t[266] = 42.02; p < .001). A third method serving as a check of the affect of the affect manipulation was a direct measure of how subjects felt generally after they watched the initial news stories. As expected, a significant mean difference was found in subjects' ratings between the affect conditions. Subjects in the positive affect condition generally felt good, whereas subjects in the negative affect condition felt bad after watching the stories (on a 7-point, M for positive condition = 5.96; M for negative condition = 1.89; t[262] = 29.69; p < .001). Overall, then, the results suggest that the appropriate mood was successfully induced in each affect condition.

Table 2: Mean Affect Ratings by Manipulated Affect Condition

Rating	affect condition positive	 negative	*t*	*p*
	(n=132)	(n=128)		
positive affect index	5.86	1.62	23.04	.001
negative affect index	1.13	5.63	-43.22	.001
affect score @	42.37	-45.08	42.02	.001
general feelings@@	5.96	1.89	29.69	.001

Note. Means reflect the position on 7-point scales from 1 = "definitely do not feel" to 7 = "definitely feel."

@: Means reflect the overall affect score by subtracting negative affect score from the positive affect score with higher scores indicating greater positive affect.

@@: Means reflect the position on a 7-point scale from 1 = "extremely bad" to 9 = "extremely good."

B. Issue Salience

Based on the pretest results, it was expected that the issue concerning a crackdown of the underground radio stations would be more salient to the experimental subjects than would the issue concerning a protest against banning employment of the mainland Chinese fishermen. Indeed, results from the experiment indicated that the radio crackdown issue was significantly more salient to the subjects than was the fishermen protest issue (M for radio crackdown = 1.68; M for fishermen protest = 1.34; t[267] = 4.22, p < .001).

The experimental results suggest that issue salience of the news stories was also successfully manipulated.

2. Hypotheses

As mentioned earlier, the main dependent variable in the study was affective evaluation, which was measured by subjects' overall affect score, formed by subtracting the negative affect index from the positive affect index, and their general feeling states. The main data analytic technique in the study thus involved two three-factor analysis of variance (ANOVAs). Each ANOVA was used to examine the main effects of the three independent variables, initial valence of affective state, sex and issue salience, as well as the interactions between these independent variables, on the subjects' affective evaluations. This section will first illustrate the ANOVA results using affect score as a measure of subjects' affective evaluation, and then proceed with the ANOVA results using the general feeling state measure.

On average, the overall affect score of the 260 subjects was -15.40 (on a range of -20, representing "extremely negative" to +20, "extremely positive"). This indicated that after watching the fishermen protest or the radio crackdown story, subjects' affective reactions were generally negative. The first ANOVA found a significant main effect of subjects' manipulated affective state (F(1, 260) = 28.27, p < .001), which means that subjects initially assigned to the positive affect condition (and did feel positive) rated their affective reactions to the later news viewing as more negative (M = -20.01) than those initially assigned to the negative affect condition (M = -10.66). A significant main effect was also found in sex (F(1, 260) = 4.95, p < .05). That is, female subjects rated their affective reactions to the later viewing of the news story as more negative (M = -17.14) than their male counterparts (M = -13.74). Issue salience of the news story, however, did not result in any significant difference in subjects' affect score ratings (M for radio crackdown = -14.72; M for fishermen protest = -16.72). In addition, neither the two-way interactions between any two of the three independent variables, initial affective state, sex and issue salience, nor the three-way interaction among them was found significant. (See Table 3)

Table 3: Analysis of Variance Summary Table for the Overall Affect Score

Source of Variation	*df*	Mean Square	*F*	*p*
Main Effect	3	2236.22	10.94	.000
affect	1	5578.81	28.27	.000
sex	1	1012.20	4.95	.027
issue salience	1	36.06	.18	.600
Two-way Interaction	3	44.26	.22	.885
affect-sex	1	28.72	.14	.708
affect-issue	1	29.43	.14	.705
sex-issue	1	82.16	.40	.527
Three-way Interaction	1	261.71	1.28	.259
Explained	7	1014.73	4.96	.000
Residual	252	204.40		

The ANOVA using the general feeling state measure of affective evaluation yielded similar results to those using the affect score measure. On average, subjects felt slightly negative after watching the fishermen protest or the radio crackdown story (M = 3.50, on a 7-point scale where 1 = "extremely bad" and 7 = "extremely good"). The main effect of the manipulated affective state was significant (F(1, 260) = 22.61, p < .001), indicating that subjects initially assigned to the positive affect condition rated their affective reactions to the later news viewing as generally more negative (M = 3.22) than those initially assigned to the negative affect condition (M = 3.79). Although female subjects rated their general affective states as slightly more negative (M = 3.43) than their male counterparts (M = 3.57), the predicted main effect of sex was not significant (F(1, 260) = 1.76, p = .17). Likewise, issue salience of the news story did not result in any significant difference in subjects' general affective reactions (M for radio crackdown = 3.56; M for fishermen protest = 3.44). Nor was there any obvious two-way or three-way interaction between the three independent variables. (See Table 4)

Table 4: Analysis of Variance Summary Table for the General Feeling State

Source of Variation	*df*	Mean Square	*F*	*p*
Main Effect	3	8.16	8.64	.000
affect	1	22.61	23.94	.000
sex	1	1.76	1.87	.172
issue salience	1	1.62	1.72	.192
Two-way Interaction	3	.43	.45	.718
affect-sex	1	.03	.03	.872
affect-issue	1	.82	.87	.353
sex-issue	1	.51	.54	.463
Three-way Interaction	1	.05	.05	.818
Explained	7	3.69	3.90	.000
Residual	248	.94		

IV. Discussion and Conclusion

This study began with the idea that individuals' initial affective reactions evoked by media messages might influence their affective evaluations of subsequent messages. An experiment was designed to test whether the interplay between individuals' various affective states are a result of the opponent process or excitation transfer, built on various combinations of initial valence of induced affect, sex differences, and issue salience of subsequent messages. To conclude, we briefly recapitulate the main experimental findings in light of the predicted hypotheses, consider various limitations of the experimental investigation, and discuss implications of the results.

1. The Role of Initial Valence of Affective State

Hypothesis 1 predicted that in processing of various affect-eliciting media messages, an individual's affective response to initial message stimuli would either activate an opposing process that tends to return the individual to hedonic neutrality, or enhance the affective response to the subsequent message that is valenced similarly to the initial one. If the former holds true, then the affective change reflects the opponent process phenomenon; if the latter assumption is supported, then it indicates that a transfer of the affective excitation has occurred. In line with the opponent process prediction, subjects initially assigned to the positive affect condition rated their affective reactions to the later news viewing as more negative than those initially assigned to the negative affect condition. This is because individuals exposed to positively toned stimuli might initially feel positive (the a-process). Later, an opposite affective state (b-process) was triggered to bring the individuals to baseline. On the contrary, individuals who initially felt negative might activate a positive affective process. Due to the differences of affective baseline prior to processing subsequent media messages, individuals' affective evaluations of subsequent messages were more negative when the affective change was generated from positive to slightly negative than from negative to slightly negative.

The aforementioned change of affective baseline in processing various affect-inducing media messages could find its support from judgmental approaches to persuasion and attitude change. According to the judgmental theories of persuasion, individuals' attitudes toward some object or issue can be arranged from the most negative to the most positive. The "adaptation level" is of considerable importance because it serves as a psychological neutral point by which all other stimuli are judged. A "contrast effect" is said to occur when some new stimuli being judged are displaced away from the adaptation level. Put in another way, as the adaptation level moves toward the value of a new stimulus, the judgment of every other stimulus in the series moves in the opposite direction (Petty & Cacioppo, 1981). It can be posited that in the present study, subjects' subjective anchor points in affective evaluations would shift with differences of the adaptation level, particularly after viewing different affect-eliciting news stories. Experimental subjects initially assigned to watch the positive stories may have emotionally experienced something similar to a contrast effect when they continued to watch the slightly negative story. Therefore, their affective evaluations of the latter negative story could become more negative compared to those who watched the negative stories first.

The failure to find support for the excitation transfer of affective reactions in the present study can be attributed to three possibilities. The first is that although both the initial news stories used as negative affect manipulation and the subsequent slightly negative story could elicit individuals' negative responses, the physiological differences existing in these responses might still be noticeable, that is, individuals were still able to identify the source of their physiological arousal, thus no excitation transfer would occur. As a result, the initial negative affect would not enhance the latter reaction of the same affective valence.

Another possibility that excitation transfer phenomenon was not observed has to do with the nature of message stimuli used. Most excitation transfer studies focus on messages that could induce strong, impulsive emotional reactions, from sexual excitement to anger and aggressive behavior (Zillmann, 1978). Message stimuli employed in this experiment were all television news stories that were relatively distant from most individuals' personal experiences, and were intended to be produced in an objective, value-free fashion. Therefore, whatever affective responses these television news stories could induce, they might still be less strong than those generally discussed in the excitation transfer literature. More recently, in discussing the limits of excitatory summation of the excitation transfer assumptions, Zillmann (1996) indicates that when preexisting excitation is at basal levels, the subsequently elicited excitatory response can manifest itself in full; when preexisting levels are at a maximum already, the subsequently excitatory response cannot at all increase preexisting levels. As the initial message stimuli employed in the negative affect condition of the present study were more negative than the subsequently presented message, it can be expected that subjects' emotional responses to the subsequent message did not add up to their initial negative responses. The power of excitation transfer was thus limited.

Last but not least, recent studies on adolescents' viewing graphic horror films (e.g., Johnston, 1995) suggest that findings regarding the effect of media on the intensification of arousal and the transfer may be explained by individual differences in viewing motivations. Without addressing the role that individuals' motivations play in the present study, the limited explanatory power of excitation transfer is thus understandable.

Despite the foregoing discussions on why the effects of excitation transfer were not manifest in the present study, it does not rule out the fact that the assumptions made in the excitation transfer theory are still valid in studies on other types of emotional experiences, as have been documented in a variety of psychological literature.

2. The Role of Sex Differences

Hypothesis 2 predicted that when processing a media message that is slightly negative in tone, women's affective reactions are more likely to be stronger than those of men's. Whereas the ANOVA results using affect score as a measure of subjects' affective evaluation found the main effect of sex, those using the general feeling state measure failed to find sex differences in affective evaluations. These findings appear to contradict with what most literature has suggested: When self-report measure of overall, rather than discrete, affective state is used, a clear sex-affect link can be observed (LaFrance & Banaji, 1992). As women generally exceed men on feeling and expressing intropunitive negative affect, and men exceed women in outward-directed negative affect (Brody & Hall, 1993), it might be necessary to further distinguish between the various negative affective responses, rather than to use a combined measure of the general positive or negative affect scores, to effectively predict the affect-sex relationship in news processing. It, thus, leaves us with some room for improvement in this line of future research.

3. The Role of Issue Salience of Subsequent Message

Hypothesis 3 predicted that individuals' affective reactions to the high-salience media message might be stronger than to the low-salience one. The predicted main effect, however, was not supported That is, whether subjects processed the high-salience radio crackdown story or the low-salience fishermen protest story, the strengths of their affective evaluations did not differ. As findings addressing the effect of issue salience draw mostly from media agenda-setting literature, which is concerned primarily with individuals' cognitive activities such as attitude formation and evaluations (Watt, Mazza, & Snyder, 1993), the experimental results suggest that perhaps the affective and cognitive evaluations should be perceived differently. Representing this proposition, Zajonc (1982, 1984) proposed a "separate-systems" view in which affect and cognition are considered separate and partially independent systems. Sometimes, individuals' exposure to a stimulus can lead to increased affect even in the absence of stimulus recognition (Moreland & Zajonc, 1977; Wilson, 1979; Zajonc, 1980, 1984). Although the foregoing rationale in studying news processing remains speculative at this point, the role that issue salience plays in predicting individuals' cognitive responses to the message stimuli might not apply to individuals' affective responses.

4. The Interactions of Initial Affect, Sex Differences and Issue Salience

Hypotheses 4 to 7 predicted the two-way interactions of initial affect-sex, affect-issue salience, and sex-issue salience, respectively, as well as the three-way interaction of individuals' initial affective state, sex and the issue salience of the subsequent message. Contrary to the predictions, none of the hypotheses found supportive evidence in the experiment. It could be that individuals' affective responses to the initial message stimuli already differed. Subsequent change of the affective states might parallel the initial affective reactions. Therefore, no interaction effects could be observed.

5. Limitations of the Study

Like many psychological experiments, the present study used college undergraduates as subjects. Although using an unrepresentative sample should not be a major concern for studies focusing on initial theory-testing, such as this experiment, the homogeneity and peculiarity of the selected sample is a clear limitation and may have affected the experimental results. As a next step in testing the affective interplay of news processing, it would be useful to recruit adult subjects with more diverse backgrounds.

Another issue that might be addressed in future studies is possible limitations on the affect measure. The present study employed the affect-rating scales adapted from the Mood Adjective Check List (MACL; Nowlis, 1965). Although the MACL measure has been used widely and effectively in a number of psychological studies to measure affect (Lorr, 1989), and the present experiment also yielded some significant results, it still remains unclear whether the different affective responses found in subjects' self reports were a function of genuine affective reaction or of affective expressivity. Future investigation could consider using various affect measures, including one that can directly assess physiological arousal of affective change, to measure and compare affective reaction and expressivity concerning news processing.

6. Implications for Future Research

Despite the various limitations, the present study has important implications for media research. The suggestion that individuals' initial affective reactions to message stimuli may interfere with their affective evaluations of subsequent messages has both theoretical and practical implications for news studies. Theoretically, as most literature under review concerning information processing focuses on the schematic differences and assumes individuals as "rational" thinkers, the present study, by exploring the roles that affect plays in individuals' processing of the media messages, would shed some new lights on our understanding of the warmer side of audience activities.

The experimental findings concerning the combinations of various affect-evoking messages also suggest that media practitioners may easily manipulate the sequence of the news stories to influence audience's affective reactions to news issues. This is particularly true in processing television messages that are heavily loaded with visual stimuli and involve a rapid, conditioned and passive processing mode (Reeves, Chaffee, & Tims, 1982). In a nutshell, findings reported in the present study have practical implications for viewers in their learning and forming emotional experiences from television news. To be a more autonomous and aware audience member, it is critical to discern such message manipulation as tested in the present study, and to demand more responsible news presentations from media organizations. Future research employing longitudinal observations could investigate whether individuals' affective reactions due to manipulation of the message sequence could affect the following cognitive activities such as evaluation and behavioral intention.

Overall, whereas mass communication researchers have come a long way in addressing the cognitive mechanisms behind mass media processes and effects, the way that affective interplay functions, as well as its antecedents to message processing, should not be overlooked.

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WILLINGNESS TO SPEAK OUT AND THE SPIRAL OF SILENCE: A META-ANALYSIS

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Abstract

Noelle-Neumann's spiral of silence theory (Noelle-Neumann, 1974, 1993) has been subjected to numerous tests throughout the world. In this paper, we report a meta-analysis of studies focusing on two questions relevant to the theory: (1) Are people who perceive greater public support for their opinions more willing to express those opinions than those who perceive less public support for their opinions? and (2) Are people who believe their own opinions are becoming more popular more willing to express those opinions than those who see their opinions losing support? Both hypotheses received support, although the average effect size was negligible. Moderation analyses suggest that effect sizes tend to be larger in studies where the target of expression is presumed to disagree with the opinion of the respondents in the studies. The theoretical and methodological implications of these findings are discussed.

Willingness to Speak Out and the Spiral of Silence: A Meta-Analysis

More than twenty years ago, Elisabeth Noelle-Neumann (1974) presented a theory of how individual opinion expression is linked to public opinion. Her theory claimed to be an "integrated model of opinion formation and change" resting on the notion that individuals holding minority opinions will be compelled or will compel themselves to express the opinion held by the majority or to remain silent (Salmon and Kline 1985). This "spiral of silence" theory asserted that, in a mass society with mass dissemination of opinion, minority viewpoints would be excluded by a widening tendency to self-censor as majority opinions received increasing attention and legitimacy in the mass discourse.

Noelle-Neumann's theory of the spiral of silence has been called "one of the most influential recent theories of public opinion formation" (Kennamer 1990, 393) and is probably one of the single most widely discussed and researched theories of public opinion and communication. Studies citing or testing the theory can be found not only in communication or public opinion journals, but also in other social science fields, including political theory and sociology (see Salmon and Glynn in press). While the theory provides a compelling account of public opinion formation, it also is useful for establishing the precedent of linking small group research and mass communication inquiry with research on public opinion formation (see Price and Allen 1990).

As compelling as the theory is, however, it is unclear whether it has been empirically confirmed. Noelle-Neumann's own investigations have focused on demonstrating when and if a spiral of silence had developed in the past. Independent investigations have also been conducted, varying widely in methodology, to determine whether the theory is supported in specific contexts. While studies testing this link have been accumulating for some time, the literature is confusing, filled with mixed and often contradictory findings.

In this paper we report a meta-analysis of the studies which have subjected 2 propositions of the spiral of silence theory to empirical test. Meta-analysis is a quantitative approach to integrating research results across studies and is becoming increasingly important in the reanalysis of communication findings (Allen, Emmers, Gebhardt, and Giery 1995; Herrett-Skjellum and Allen 1995; Kim and Hunter 1993; Morgan and Shanahan in press). Meta-analysis has an advantage over the traditional narrative review in that it is a quantitative rather than a qualitative procedure for reaching decisions about a theory. Thus, unlike narrative, qualitative reviews which tend to be based more on the reviewer's subjective impressions of the literature, meta-analysis gives the reviewer specific quantitative data that are less easily distorted or otherwise influenced by the subjective biases of the reviewer. While individual researchers can easily disagree on interpretations of a body of research, meta-analysis itself yields an easily interpretable and more "replicable" conclusion about a given body of studies.

In a meta-analysis, results from studies are treated as data points in an analysis designed to provide an estimate of the effect size from the entire body of research. Individual studies testing any theory are, of course, susceptible to a variety of errors. Sampling error, in particular, means that the results of individual studies can vary widely while still, in a statistical sense, coming from a sample whose mean represents the "true" effect. It is not uncommon, as Hunter and Schmidt (1990) show, that studies which provide widely divergent results are simply, when viewed from the perspective of meta-analysis, explainable as being due to sampling variability. Meta-analysis helps in minimizing the misinterpretation of what is actually random variability in results across studies.

The Spiral of Silence: Theory and Process

The basic idea of the spiral of silence is not newly conceived, but comes, instead, from similar ideas expressed by Noelle-Neumann's predecessors and contemporaries. For example, James Madison, writing in Federalist No. 49, stated that

> "If it be true that all governments rest on opinion, it is no less true that the strength of opinion in each individual, and its practical influence on his conduct, depends much on the number which he supposes to have entertained the same opinion. The reason of man, like man himself, is timid and cautious when left alone, and acquires firmness and confidence in proportion to the number with which it is associated." (Sanders, Kaid, and Nimmo 1985, p. xvi).

Noelle-Neumann's theory was also influenced by the writings of such disparate political philosophers and scholars as John Locke, James Bryce, Floyd Allport, Alexis de Tocqueville and others. Thus, hers is "a comprehensive assemblage of ideas that have been available in the public domain in one form or another for centuries, but which have not been previously linked in this particular manner" (see Salmon and Moh 1994).

Briefly, the theory of the spiral of silence states that one's perception of the distribution of public opinion influences one's willingness to express opinions. This premise is based on the assumption that each individual has some propensity to assert his or her views, and that the decision to express oneself depends on the number or proportion of others who voice support for that position (cf., Noelle-Neumann 1993). The individual both influences and is influenced by the apparent "global" opinion environment. Individuals take their cues about beliefs of the public from the environment and those opinions having the most visible (vocal) adherents appear to an observer to be more widely held opinions than is actually the case. Taylor points out that "the act of self expression, however, changes the global environment of opinions, altering the perceptions of other persons and, ultimately, affecting their willingness to express their own opinions" (Taylor 1982, 311). Because one group expresses itself and another is silent, people are confronted more and more often by one viewpoint, which increasingly appears to dominate. As Noelle-Neumann (1974, 44) notes, "the tendency of the one to speak up and the other to be silent starts off a spiraling process which increasingly establishes one opinion as the prevailing one." Because mass media amplify and extend this process of establishing a majoritarian perception, the spiral itself is amplified.

For a theoretical foundation, Noelle-Neumann relied on the writings of the German sociologist Ferdinand Tonnies, who is perhaps best known for articulating the notions of gemeinschaft and gesellschaft (Salmon and Moh 1994). For Tonnies (1922), public opinion represented a social force, an informal mechanism of social control: "Public opinion always claims to be authoritative. It demands consent or at least compels silence, or abstention from contradiction" (Noelle-Neumann 1974, 44). From this viewpoint, "social conventions, customs and norms have always been included in the domain of public opinion. Public opinion imposes sanctions on individuals who offend against convention -- a process of 'social control'" (Noelle-Neumann 1973, 88).

Noelle-Neumann proposes that people who assess the current or future climate of opinion as hostile to their own opinion avoid speaking out to avoid "isolating" themselves. In fact, Noelle-Neumann states that not isolating oneself is more important than holding to one's own judgment. She notes that individuals are continuously sensitive to the climate of opinion and assess the distribution and strength of opinions for and against their own (using a "quasi-statistical sense"). If they find their own view to be dominant or on the rise, they will be willing to express their view publicly. If they sense that their view is in the minority or on the decline, they will be silent, largely to avoid the possible social retributions of appearing to hold opinions that are somehow different than others'.

This "fear of isolation" is one of the more controversial concepts in the spiral of silence theory. According to Noelle-Neumann, fear of isolation is the basic motive for an individual to relate his or her behavior to others. Noelle-Neumann asserts that the fear of isolation affects the process of public opinion when the lack of perceived support for the person's own position leads to an unwillingness to express such unfavorable positions. She assumes that individuals do hold private opinions but believes that their strength is insufficient to withstand the fear of isolation (Glynn and McLeod 1985) and thus minority groups who perceive little support for their viewpoints will tend to remain silent rather than speak their opinions publicly.

A number of different methodologies have been used to test the theory, although they tend to share a common approach. Typically, survey methodology is used, wherein people are asked by the researcher about their own opinions and what they think others tend (or will tend) to believe about some topic or issue. Subsequently, respondents are presented with a hypothetical situation and are asked if they would be willing to express their opinion or enter a conversation on the topic or issue in this situation. The spiral of silence theory predicts that people who perceive public opinion as consistent with their own opinion will be more willing to express their opinion than people who see prevailing public opinion as incongruent with their own.

Over the course of the development of the spiral of silence theory and subsequent research, several concerns and criticisms have been advanced. Theoretical concerns include: 1) the ability of the theory to "cross national boundaries" (cf., Glynn and McLeod 1982, 1985); 2) relevance of the theory to issues of conformity and majority influence (Salmon and Kline 1984; Glynn and McLeod 1984); 3) relevance of the theory across issues (Salmon and Kline 1985; Glynn and McLeod 1985) and 4) weaknesses in conceptual development (Merten 1985; Glynn and McLeod 1984) (see Salmon and Glynn in press).

In sum, the spiral of silence theory and its accompanying research present both a compelling narrative account of public opinion formation and change and a controversial theoretical formulation of that process. While the theory contains a number of propositions, here we focus exclusively on research examining two of the most critical components of the theory: (1) Are people who perceive higher support for their own beliefs or opinions more willing to express those opinions than people who perceive less support for their opinions;

and (2) Are people who perceive those own opinions are gaining in popularity more willing to express those opinions than people who perceive their opinions are losing popularity? With over twenty years of research on this issue, it seems likely that we should be able to reach some firm conclusions about whether there is any general empirical support for these propositions. In addition, we examine the empirical literature to date with an eye toward detecting variations in how studies have been conducted and attempt to empirically determine whether those variations in methodology produce systematic differences in study results.

Method

Literature Search

The first step in a meta-analysis is to find as many studies as possible relevant to the goals of the analysis. Toward this end, the following computer databases were searched with keywords "spiral" and "silence": PsychLIT/INFO journal articles, 1974 to 1995; PsychLIT book chapters, 1987 to 1995; Sociological Abstracts, 1963 to 1995; Educational Resources Information Center (ERIC), 1966 to 1995; Dissertation Abstracts International, 1861 to 1995; WorldCAT; Mass Media article index (1984-1995), Periodical Abstracts, 1986 to 1995. The table of contents of the 1990 to 1995 volumes of the following journals were also scanned manually for relevant studies: Communication Research, International Journal of Public Opinion Research, Journalism Quarterly, Journal of Communication, Public Opinion Quarterly. In addition, the reference sections of all literature found, including previous literature reviews, were examined for relevant studies. Finally, researchers with a history of publication in the area were contacted with a request for assistance in locating additional published or unpublished studies, book chapters, conference presentations, etc.[1]

Selection Criteria

Three criteria were used in deciding whether a study would be included in the analysis: (1) The study must have explicitly measured "willingness to speak out." Any study using a procedure where an individual was presented with a hypothetical situation and was asked whether he or she would be willing to enter a conversation or express his or her opinion was included. We did not include results from studies that measured opinion expression through other means such as voting (e.g., Glynn and McLeod 1984; Ikeda 1989), petition signing (e.g., Mutz 1989), donating money to a cause (e.g., Taylor 1982), or that used retrospective accounts/recall of past opinion expression (e.g., Richardson, Detweiler, and Bush 1988); (2) The study must have explicitly operationalized perceptions of the opinion distribution or "climate" (current or future) and then contrasted that with the participant's own opinion. Excluded were results from studies where individuals expressed which opinion was likely to become more or less popular rather than whether their own opinion was gaining or losing ground (e.g., Matera and Salwen 1992). In addition, in light of the abundance of evidence suggesting that people often are systematically inaccurate or egocentric in their assessments of public opinion (e.g., Fields and Schuman 1976; Kennamer 1990; Mullen and Atkins, et al. 1985), we also excluded studies wherein willingness to speak out was compared between individuals that were "objectively" in the majority versus the minority in reference to current public opinion polls or the data itself (e.g., Katz and Baldassare 1992; Tokinoya 1996). The spiral of silence theory proposes that it is people's perceptions of public opinion that drive one's willingness or reticence to speak out. Thus, only studies with an actual measure of those perceptions compared to the participant's own opinions were included; (3) The study must have measured perceptions of opinion support directly rather than indirectly by experimentally manipulating them (e.g., Keenan 1990).

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[1] We give a special thanks to the following people who provided assistance in locating the studies or sending us unpublished manuscripts for use in the analyses: Wolfgang Donsbach, William Gonzenbach, Steven Jackson, Elisabeth Noelle-Neumann, Michael Salwen, Hiroshi Tokinoya.

These selection criteria yielded 20 published and unpublished reports, representing research in 7 countries, spanning 3 continents, and based on responses from over 11,000 participants. From these reports, 130 separate effect sizes were computed, although these effect sizes cannot be considered statistically independent. The averaging procedure to eliminate nonindependence between the tests (described below) reduced this number to 38 tests (27 for current opinion, 11 for future opinion) that were then subjected to meta-analysis. References to studies that provided data to the analysis are starred with an asterisk in the reference list.[2]

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[2] The second selection criterion was by far the most selective. We were surprised to find how often spiral of silence researchers fail to operationalize perceived congruency as such, instead focusing on "objective" congruency. One study, however, was eliminated even though it met all three selection criteria (Sun 1991) because inconsistencies in the operationalization, reporting, and discussion of the results made it difficult to determine if the

Of course, there is no way of determining whether we have actually found all studies ever conducted. Indeed, we suspect that some studies have eluded us. However, we have no reason to believe that the studies we have included are not representative of other studies that might exist. The usual concern is that unpublished studies might show smaller effects than published studies because reviewers and editors may be biased toward publishing only statistically significant results (the so-called "file-drawer" problem). As will be seen, however, we did code the studies we found on this dimension in order to determine if published and unpublished studies differ in the magnitude of the effects reported.

Measure of Effect Size

Meta-analysis requires that all study results be converted to a single metric for analysis. There are many different measures of effect size, each of which is designed for specific experimental designs or tests. The measure of effect size we chose was Pearson's correlation coefficient (r) because it is the most versatile and general of effect size measures. Nearly any statistical test can be converted into r and as a measure of association, r is widely understood and accepted. In the bulk of the studies found, r was directly reported. When it was not reported, it was derived from information provided in tables or translated from other statistics given using conversion formulae discussed by Rosenthal (1991).

The study outcomes were coded such that a positive correlation reflects a tendency for people who perceive greater support for their opinions to be more willing to speak out than those who perceive less support. Similarly, for studies examining opinions trends, a positive

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obtained effect size was positive or negative.

correlation reflects a tendency for people who see their own opinions as gaining in popularity to be more willing to speak out than those who see their opinions as losing support. In cases where the relevant effect was reported simply as "nonsignificant" without reporting the actual result, the effect size was coded as $r = .00$, a conservative but widely-practiced approach. We did not adjust for unreliability in measurement or for range restriction, as some have suggested (e.g., Hunter, Schmidt, and Jackson 1982), simply because rarely did the investigators report the information necessary to carry out such adjustments. Prior to analyses, the correlations were transformed with Fisher's r-to-Z transformation (Rosenthal 1991).

We were unable to obtain effect size (simple correlation) estimates from two studies (representing 7 of the 130 tests) that reported only standardized regression weights (beta) or other measures of partial association. While the standardized regression slope is not the same as the simple correlation, we decided to use these estimates as proxies. We had no a priori reason to suspect that the bias introduced would be positive or negative and thus chose to include the results in the name of increasing the sample size, which was already somewhat small compared to many meta-analyses.

Coding of Studies for Moderation Analysis

A moderator can be thought of as any conceptual or methodological variable which alters the magnitude or direction of an effect size in a study or set of studies (cf., Baron and Kenny 1986). Our search for moderators of the study results was an informal one. The list of moderators eventually examined was derived simply by examining the literature with an open eye and mind for detecting differences in how studies have been conducted and the variables operationalized. Emphasis, of course, was placed on discovering theoretically-meaningful differences across studies.

Each study was coded with respect to the methodology used for each potential moderator identified. We do not claim to have identified all potentially important moderators. The list below reflects those potential moderators that showed enough variability across studies to allow us to conduct a reliable statistical test. The mnemonic (in capital letters) refers to the variable name used in Table 1.

Express to a member of the media (TO MEDIA). In some studies, respondents were asked if they would express their opinion to a member of the media (e.g., TV interviewer, radio station host). In other studies, the person was not a member of the media (e.g., a person on a bus). This moderator coded the studies with respect to whether or not the target toward whom expression was directed was a media figure.

Converse or speak opinion (EXPRESSION). This moderator reflects whether the respondents were asked if they would be willing to speak their opinion or simply engage in a conversation with a person about the topic.

Presumed beliefs of target of expression (DISAGREE). Studied varied in whether or not the person toward whom the expression of opinion was presumed to disagree with the respondent. In many studies, it was left unspecified what the target person thinks or it was presumed that the audience would contain both people who disagree and people who agree with the respondent. In contrast, in some studies the wording of the questions made it clear that the target audience contained only people who would disagree with the respondent.

Target toward whom expression is directed (STRANGER). This moderator reflects whether the audience of the opinion expression was a stranger or a member of the local community. "Strangers" included, for example, such audiences as members of the media or people on public transit, while local community members included people at a neighborhood gathering, friends or family members, people at community meetings, etc.

Measurement of response variables (DICHOTOMIZATION). Investigations differ in the level of measurement used when measuring perceived opinion and willingness to express. Most frequently, responses are dichotomous (i.e., yes/no, majority/minority) or are ultimately dichotomized before the data are analyzed. But some investigators use ordinal scales with more than 2 levels (e.g., 1 to 7 scales reflecting different degrees of willingness to express). From a statistical standpoint, dichotomization of continuous or ordinal variables tends to reduce effect sizes (Cohen 1983). A study was coded as "dichotomous" if either the independent (perceived support) or dependent (willingness to express) variable was coded dichotomously. If neither was measured dichotomously, the study was coded as nondichotomous.

Source of effect size (SOURCE). We also coded the studies with respect to whether the results were published (in professional journals or book chapters) or unpublished (conference presentations, other unpublished results).

Region of study (REGION). Spiral of silence studies have conducted most extensively in three broad regions: Europe, Asia, and the United States. This moderator simply coded the studies with respect to the region of the world in which the data were collected.[3]

Dealing with Statistical Nonindependence

Most of the studies found reported more than one hypothesis test, many of them based on different methodologies. Whenever multiple hypothesis tests are based on the same participants, the tests cannot be classified as statistically independent--a requirement for the meta-analytic method used. To eliminate this nonindependence, we computed an omnibus average effect size in studies reporting multiple tests based on the same participants. The omnibus effect size, which was computed by weighting each test by its sample size, essentially collapses the data across the various methodologies used by the investigator. This procedure yielded 27 independent effect sizes for studies examining "current opinion" and 11 independent effect sizes for studies examining "future opinion." These numbers are larger than the number of reports found because several investigators conducted more than one independent test, each based on its own independent sample.

For statistical analyses of moderation, nonindependence was a problem when an investigator used several different methodologies. For example, some investigators asked respondents how willing they would be to express their opinions to two different categories of people: strangers, and members of the community. We could not include such studies in the test for moderation by "target toward whom expression is directed" because the effects within those studies couldn't be classified as statistically independent. For this reason, some of the moderation analyses were based on fewer than the total number of independent omnibus effect sizes computed across the studies.

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[3] One other common variation in studies was the reference point against which opinion congruence was measured. Studies differ with respect to whether the respondent's own opinion was contrasted with perceptions of the national population, local community, friends, family, etc. Unfortunately, the variations tend to occur within studies rather than between them, and thus we could not reliably test the moderating effect of this variation because there were very few statistical tests that could be classified as statistically independent.

Results

Was there evidence across the studies that people who perceive greater current support for their own opinions are more willing to speak out? In Figure 1, we display a stem-and-leaf diagram of the 130 effect sizes computed across the 20 reports we found. As can be seen, the effect sizes varied considerably, ranging between -.19 and +.50. Also notable is that 88 of the 130 effect sizes (68%) were positive, as the spiral of silence theory would predict. However, these results are purely descriptive and the effect sizes are not statistically independent.

Perceptions of Current Opinion and Willingness to Speak Out

After collapsing nonindependent effect sizes using the procedure discussed above, there was evidence that the average correlation between perceptions of current opinion and willingness to speak out was positive, although this average was very small, mean r = .033, median = .035, SD = .067, with a 95% confidence interval from .006 to .060. Using the Stouffer's Z method, the combined probability of the results was statistically significant, Z =

3.59, $p < .0004$.[4] The fail-safe number for this result is 174, indicating that this result would be statistically nonsignificant (i.e. $p > .05$) if 174 independent tests averaging an effect size of zero exist but were not included in the analysis (Rosenthal 1979).

Importantly, the effect sizes were significantly heterogeneous across the studies, $\chi^2(26) = 50.37$, $p < .003$, suggesting the presence of at least one moderator. Unless otherwise discussed, we used simple t tests to examine whether the effect sizes differed between the moderator conditions, weighting each study by its sample size. As can be seen in Table 1, one of the potential moderators identified in the literature did produce significant variation in the effect sizes across the studies. There was evidence that people who perceived greater support for their own opinions were more willing to speak out when the target audience was presumed to disagree, mean $r = .077$. In studies where the question presented to the participants didn't specify whether or not the person would disagree, or allowed the respondent to infer that the audience would contain a mixture of people who both agreed and disagreed, there was no effect of perceived support on willingness to speak out, mean $r = -.002$. This difference between the studies was statistically significant, $t(21) = 2.73$, $p < .02$.[5]

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[4] In all analyses, the effect sizes were weighted by the number of participants in the study, estimated from information provided in the reports. All reported means are thus weighted means.

[5] We should note that with tests on seven moderators, the probability of finding at least one significant moderator at .05 just by chance is higher than .05. Applying the Bonferroni correction for multiple tests to this p value, the corrected probability of this difference is .088.

There was also weak evidence for regional variation in the effect sizes. To determine whether the effect sizes differed as a function of region of study, we conducted a one-way analysis of variance on the effect sizes, weighting each study by its sample size. There was some weak evidence that willingness to speak out as a function of perceived support differed between the 3 regions where studies have been conducted, $F(2,23) = 3.07$, $p < .07$. Exploratory analyses indicated that the U.S. and European studies didn't differ from each other, while the studies conducted in Asia tended to produce effect sizes that were smaller than both U.S. and European studies. However, those differences were themselves only marginally significant.

Perceptions of Future Opinion and Willingness to Speak Out

We found only 11 studies that met our selection criteria that explicitly examined congruence between own opinions and perceptions of future opinion and how that congruence predicts willingness to speak out. These 11 studies produced 20 effect sizes. After averaging nonindependent effects within-study, we were left with only 11 independent tests for analysis. The average correlation across these 11 effect sizes was .053, median = .060, SD = .068, with a 95% confidence interval from .007 to .099. Using Stouffer's Z method, the pooled probability of this result is $p < .002$, $Z = 3.12$. Thus, there is support for the hypothesis that people who perceive greater future support for their own opinions are more willing to speak out than those who see their opinions as losing support. Again, however, the average effect size was quite small.

These studies were also heterogeneous in their effect sizes, $\chi^2(10) = 22.31$, $p < .02$.

However, given the few number of effect sizes available for analysis, we didn't conduct any moderator analyses.

Discussion

The purpose of this meta analysis was to discover if there is any broad support for the claim that willingness to express opinions is influenced by perceived support for those opinions. Our major finding is that the literature indicates a very small overall relationship between people's perception of opinion climate and their own willingness to speak out. To place our results in context, it is worth noting that most interpretations of correlations would place the relationship we found in the "weak" to "insignificant" category. Moreover, other meta-analytic studies examining communication phenomena have tended to find somewhat higher average effect sizes. For example, Allen and Herret-Skjellum's (1995) analysis of television-viewing/sex role perception relationships found an effect size of .10. Similarly, Morgan and Shanahan's (in press) analysis of cultivation studies found a relationship of .09. These meta-analysts both concluded that their relationships were small but important, but they were dealing with an effect size triple that found in this study. Kim and Hunter's (1993) study of attitude-behavior links, using techniques of disattenuation, found even higher relationships. While one could argue that we are comparing apples and oranges, it shows that the evidence for at least these 2 spiral of silence propositions is extremely weak in comparison to both accepted interpretations of correlations and other meta-analytic research in the communication field.

On the one hand, we can validly claim that the spiral of silence theory does have some support in the literature. On the other hand, the negligible average effect size seems to belie the theory's reputation as one of the more influential and important recent theories in public opinion and communication. Of course, a theory's utility is measured by more than its ability to accurately forecast research results. The theory has been a huge "success" when measured by the number of research studies it has inspired, its fusing of communication and public opinion work with research and thinking in philosophy and social psychology, and as a heuristic for thinking about public opinion in its social context. Nevertheless, we must at the same time argue that with such a small average effect size, perceptions of the climate of opinion must not be a very influential determinant of one's willingness or reticence to speak out and therefore, by extension, the process underlying the proposed relationship, fear of isolation, must not be terribly influential either. This is not to say that fear of isolation is irrelevant to willingness to speak out. Of course, when we reveal ourselves to a public audience there is certain to be some anxiety or tension about what others might think about what we have to say. But our findings suggest that if we tend to fear isolation or rejection because we think others don't agree with our viewpoints, that fear must not be terribly influential as a determinant of our ultimate willingness to speak out.

The spiral of silence theory, while influential, does seem based on a rather simplistic notion of how people rationalize their own willingness to express opinion. Because there are other kinds of group pressure besides majoritarian pressure, it may well be that spiral of silence needs to account for different kinds of contexts, issues, and cultures better than it does now. There are also other important influences at the individual level that determine how willing someone is to speak their opinions. For example, people seem more willing to talk about their opinions on topics that they know more about or that they find personally important or relevant to their lives (e.g., Salmon and Neuwirth 1990). The spiral of silence theory doesn't seem to discuss these other influences, or at least seems to underemphasize them relative to perceptions of the opinion climate. A broader and more encompassing theory of opinion expression should include these group and individual influences as well as perceptions of opinion climate, although this latter factor, as we have seen, should be probably be placed toward the bottom of the list.

The theory has also been advanced as a theory of social control, but it is not clear that the theory provides clear guidance about who controls and why. The fear of social isolation is a presumed human quality, and the mass media are conceived as agents who can exacerbate problems associated with this quality (see Noelle-Neumann 1980). But why? Other theories of social control through media, including cultivation, hegemony, some of the British Cultural studies approaches, political economy approaches, and others, theorize media as active institutional agents with intentions and goals relating to social control. Further, many of these theories embody these aspects of the theory in their empirical tests. In our opinion, the spiral of silence theory is underdeveloped with respect to its notions of social control, relying more upon apparently suspect notions of how humans behave.

In defense of the spiral of silence approach, we acknowledge that these data only address part of the theory. Although perception of opinion climate is an important component of the theory, other aspects such as the "quasi-statistical sense" and media contributions to the spiral are not tested in our data. We also did not include studies using "alternative" methods of measuring willingness to speak out, such as wearing buttons, joining demonstrations, etc. We chose to exclude such studies because these methods have not been used with sufficient frequency to obtain a reliable effect size estimate. It remains to be seen whether or not our findings generalize across these measures of opinion expression. Researchers are beginning to include scales of opinion expression that tap into multiple forms of expression instead of relying on one-shot questions more typical of previous work (e.g., Perry 1995). Perhaps these aggregate measures will more reliably and accurately detect inter-respondent variability in opinion expression. It may also be that specialized questions used in survey instruments do not capture this phenomenon very well. Focusing as they do on specific political issues and in a particular setting, such questions may simply fail to elicit a more general or valid estimation from respondents about their willingness to speak about issues. Furthermore, it is possible that respondents may, when in doubt, state that they would be willing to express their opinions, because speaking out and standing up for one's beliefs is considered a virtue in many cultures. Also, the hypothetical nature of the situation presented through survey questions simply may not engender the kinds of psychological states that putatively produce spiral of silence effects.[6]

Finally, we must acknowledge that the effect sizes included in this analysis may be somewhat conservative. As Hunter and Schmidt (1990) point out, estimates of effect size which can not disattenuate for artifacts such as reliability and range restriction are likely to be underestimates of the true effect size. We have no way of knowing how conservative our estimate is, however. Certainly, spiral of silence researchers ought to begin regular reporting of, at a minimum, some measure of variability in responses so that future meta-analysts can more accurately assess their contributions.

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[6] Surprisingly, until very recently (Hayes and Glynn 1996), no one has actually tested the spiral of silence theory in real as opposed to hypothetical situations. However, this one study suggests that the the effect, if anything, tends to be somewhat smaller when people are placed in a situation where they actually are expected to express their opinions.

Our moderator analyses do show some differences in effect size for certain groups. When the target of communication is presumed to disagree, there is more of a connection between willingness to speak and perception of others' opinion. This finding jibes with common-sense, and indicates one route that spiral of silence researchers might explore further down the road. It is logical to presume that a fear climate might be more important when a respondent perceives that his or her opinion is not in agreement with a conversational partner. Still, even when others are presumed to disagree, the average correlation between perceptions of support and willingness to speak was small.

Also, we found some weak evidence that studies conducted in Asia offered little support on average for the spiral of silence theory. Noelle-Neumann herself has argued that the theory is context-dependent (and thus often not adequately tested). Why the effect would tend to be smaller in Asian countries is unclear. Spiral of silence researchers should begin to rigorously theorize about the cultural conditions which should enhance or detract from the spiral effect.

Overall, our study casts some doubt on these 2 important components of the spiral of silence theory. It would seem that future research on the theory needs to begin from the starting point that there is likely to be very little correspondence between perceptions of majority opinion and one's willingness to express his or her opinions. After all, if the spiral of silence theory were correct in its most extreme form, how would diverse viewpoints ever make it into public discourse? The fact that the spiral never reaches its final logical conclusion (complete unanimity of opinion) shows that there are forces which can counteract the spiral, as Noelle-Neumann has herself articulated (i.e., the concept of the "hard core"). Whether these forces are related to perception of majority opinion is debatable, although there probably is an important relationship that can be found. We do not argue that the spiral of silence process never occurs. Instead, we argue based on the findings reported here, that the effect tends to be of negligible magnitude, suggesting that the dynamics of opinion perception and expression are much more complicated.

References

References marked with an asterisk indicate studies included in the meta-analysis.

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Table 1.
Meta Analysis Results for Perceptions of Current Public Opinion and Willingness to Speak

Moderator	Mean *r*	(*SD*)	*N*	*t*	*p*
TO MEDIA				1.619	n.s.
Speak to media	.002	(.051)	7		
Others	.052	(.069)	15		
EXPRESSION				1.372	n.s.
Converse	.011	(.072)	12		
Speak Opinion	.051	(.071)	13		
DISAGREE				2.728	<.02
Target Disagrees	.077	(.044)	8		
Unspecified/Both	-.002	(.073)	15		
EXPRESS TO				0.788	n.s.
Stranger	.043	(.049)	13		
Community	.022	(.022)	11		
DICHOTOMIZATION				1.170	n.s.
No	.006	(.102)	8		
Yes	.043	(.050)	18		
SOURCE				0.193	n.s.
Published	.036	(.049)	16		
Unpublished	.030	(.097)	11		
REGION				F (2,23) = 3.07, p < .07	
Europe	.067	(.029)	4		
United States	.030	(.065)	15		
Asia	-.013	(.072)	7		

Figure 1. Stem-and-Leaf Diagram for 130 Effect Sizes

Leaf (Future Opinion)	Stem	Leaf (Current Opinion)
	-0.1+	689
	-0.1-	111222
8	-0.0+	67888
32	-0.0-	1112233344
00	0.0	0000000000000
21	0.0-	1122222233444
987766	0.0+	556777777888899
4300	0.1-	000000122222333333444
9855	0.1+	5577789
	0.2-	000122344
5	0.2+	679
	0.3-	2
	0.3+	5
	0.4-	
	0.4+	
	0.5-	0

THE BIAS OF POLITICAL SCIENCE IN THE STUDY OF MASS MEDIA AND DEMOCRACY

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THE BIAS OF POLITICAL SCIENCE IN THE STUDY OF MASS MEDIA AND DEMOCRACY

ABSTRACT

Chaffee and Hochheimer have identified four normative orientations, or biases, that undergrid much research into political communication. This paper explores how the biases of political science operate in the media-politics literature, namely, how they act to relegate mass media to the margins of democratic theory and place theoretical and methodological constraints on research. Though robust, the media/politics interface remains underdeveloped largely due to these constraints. One upshot has been the rise of media intrusion theory and the neoconservative media critique. Suggestions are made for a fuller integration of communication research into political science as well as new ways of thinking about media in relation to politics.

The Bias of Political Science in the Study of Mass Media and Democracy

In a recent commentary on the "disciplinary divide" between political science and communication research, Jamieson and Cappella (1996) observe that academic disciplines "see research through the biases created by their presuppositions and preferred methods" (p. 13). These biases, they argue, cause political scientists to focus primarily on outcomes and the social-economic judgments that shape them, while prompting communication researchers to study the messages that constitute campaigns. An assumption common to much political communication research--whether conducted from a political science, mass communication, or rhetorical perspective--is that media play an intervening role in the political process. Functionally, media are seen to occupy an intermediary position between candidates who require coverage to run for elective office and voters whose political behaviors depend, in large part, on information they receive from news. Theoretically, media use has thus been widely regarded as an independent variable that helps explain some desired outcome, or dependent variable, such as political participation, attitude formation, or vote choice.

Regardless of perspective, the "media/politics interface," as Graber (1987) calls it, has been examined in terms of certain prevailing, cross-disciplinary assumptions.

terms of certain prevailing, cross-disciplinary assumptions. These intellectual assumptions, Chaffee and Hochheimer (1985) observe, involve how voters should act, how political institutions should operate, how theorists and researchers should do their work, and how communication and politics should interact. Operationally, these normative orientations manifest themselves in research designs that, (1) view the media/politics interface from an institutional or elite perspective; (2) treat the act of voting as a consumer decision and political communication research as the study of marketing problems; (3) assess the imperfect processes of politics and communication in contrast to an idealized system; and, (4) push for broad generalizations that argue the processes involved in political communication are approximately equivalent across space and time (Chaffee & Hochheimer, 1985:268-269).[1]

This paper explores how the four normative orientations, or biases, of political science identified by Chaffee and Hochheimer continue to operate in political communication research, specifically, how they act to relegate mass media to the margins of democratic theory and place theoretical and methodological constraints on studies of media and politics.

The Origins of a Marginal Press

Early election studies which examined factors involved in voting decisions seemed to demonstrate that the news media had little influence on the vote (e.g. Lazarsfeld et al., 1944; Berelson et al., 1954; Campbell et al., 1960) and therefore played a relatively minor role in the political process. Despite evidence to the contrary (see Becker et al., 1975; O'Keefe, 1975; Chaffee & Hochheimer, 1985; Rogers, 1994), the Lazarsfeld and Berelson studies held that media exposure, rather than changing people's voting decisions, simply reinforced or strengthened already existing attitudes, opinions, and beliefs. These early, essentially negative, findings gave rise to the "limited effects" school of media research synthesized by Klapper (1960) and effectively discouraged the further assignment of much importance to mass media in the political decision-making process (Graber, 1987). Subsequently, the news media's primary contribution to democratic theory came to be viewed in terms of its role in political socialization (Graber, 1989). Media were thus generally regarded as subordinate institutions and, much like school, the family, and the church, were expected to lend legitimacy to political processes (Davis, 1990).

Interestingly, and perhaps paradoxically because of their negative findings, these seminal studies laid the groundwork for the dominant paradigm of empirical mass communication research (Gitlin, 1978). The history of the limited effects model is well documented (see Chaffee & Hochheimer, 1985; Rogers, 1994) and does not need to be recited in depth here. Gradually, however, the weak effects model clashed with how media appeared to operate in society. Since the notion of media impotence contradicted lived experience--as well as political and journalistic folklore (Graber, 1987)--a new generation of political communication researchers resumed the study of media influence on elections in the late 1960s and 1970s (e.g. McCombs & Shaw, 1972; Becker, et al., 1975; Siune & Kline, 1975; Nie et al., 1976; Patterson & McClure, 1976; Mendelsohn & O'Keefe, 1976). This renewed research effort, memorialized by Chaffee (1975) in an important volume of essays on political communication (Jamieson & Cappella, 1996), asserted a more active role for mass media in the political process and established a new base of research findings showing that mass media can have important cognitive and electoral influences. To a large degree, this paradigm shift was the driving force behind the now-celebrated "ferment in the field" (early 1980s) period of communication research. Throughout this definitional decade, studies in political communication bolstered the case that news messages, institutions, and, increasingly, journalists themselves were central to the conduct and outcome of elections and a dominant influence on the public's perceptions of candidates and issues (Graber, 1987).[2] The limited effects model had become outmoded.

Yet despite these developments, many democratic theorists as well as empirical researchers in political science continue to ignore or gloss over what Zolo (1992) calls the "centrality of communication." Here, we encounter the first normative orientation, which guides studies of politics toward "the needs of the political system, in particular the electoral component of that system, and from the perspective of political elites" (Chaffee & Hochheimer, 1985:269). In this vein, the early "classics" continue to exert considerable influence on the conceptualization and execution of much political communication research. As recently as the late 1980s, writers such as Dahl (1989) and Sartori (1987) could devote entire books to political processes without directing any attention to the relationship between democracy, public opinion, and mass communication (cited in Zolo, 1992). Certain collections of classic readings in American politics (e.g. Nivola & Rosenbloom, 1986) have likewise overlooked the role of mass media in political life. While this oversight may serve disciplinary imperatives, it may do so at the expense of realism or what Jamieson and Cappella (1996) might call "representational validity"--the generalizability of a set of findings or their degree of correspondence to the true model/real world. As Zolo (1992) has noted, with the massive increase in the means of mass communication in the post-World War II period, it is increasingly implausible (if not impossible) to ignore the cognitive, emotional, and behavioral effects mass media have on voters in advanced industrial societies as well as the impact these effects have on the functioning of modern political systems.

The Search for Definitive Effects

The search for media effects provides the second normative orientation, namely, that political communication should be regarded "as a message or campaign that effects [sic] a change in people's evaluations of candidates for office" (Chaffee & Hochheimer, 1985:268). Proving definitive media effects has always been problematic. Social science, including both political science and communication research, has long had difficulty demonstrating whether mass media exposure, attention, and use has observable effects on audiences outside of controlled laboratory settings (Iyengar & Kinder, 1987; Jamieson & Cappella, 1996). As Bartels (1993) notes, the scholarly literature on this subject has been much better at "refuting, qualifying, and circumscribing the thesis of media impact than at supporting it" (p. 267). Given the pervasiveness of the mass media and their virtual monopoly over election information in advanced industrial democracies, the inability to prove a causal connection between media messages and voter behavior is, according to Bartels, "one of the most notable embarrassments of modern social science" (1993:267). Indeed, with regard to political communication, Iyengar and Kinder (1987) argue that the lack of a (universal) theory of media effects significantly impedes our understanding of how a mass democracy even works (p. 3).

Political science is strongest when assessing factors that influence voters' political attitudes and voting decisions and weakest when analyzing media content elements (Graber, 1987). This is ironic, considering that when political scientists discuss the substance of media coverage, they tend to be quite critical of journalism's performance, that is, they look at news coverage in terms of the needs of the political system (Chaffee & Hochheimer, 1985). As Graber (1987) observes, "They have complained about the heavy emphasis on 'horse race and hoopla,' the de-emphasis of issues, and the large number of stories dwelling on the personal qualities of the candidates" (p. 12). Content analyses of campaign stories carried out by political scientists have found than less than a third of campaign coverage mentions issues (Patterson, 1980; Robinson & Sheehan, 1983, cited in Davis, 1990), compared to a preponderance of political strategy coverage. More recently, Patterson (1993) has documented a negative and evaluative pattern of media coverage of politics. These findings imply a weak empirical connection between what researchers view as the needs of the system and what people actually do in the evolving ecology of the media/politics interface, a topic to which we will return below in the section on political participation.

Media 'Intrusion' Theory

For now, we proceed to the third normative orientation. Here, it is argued that media institutions, because they are not seen as "comprehensive, accurate, and scrupulously fair and politically balanced" (Chaffee & Hochheimer, 1985:268), represent a threat to the healthy functioning of the democratic system. In contrast to an ideal political communication system, existing media practices are regarded as increasingly intrusive, disruptive, and an inappropriately interpretive part of the campaign process, especially in presidential elections, where journalism has filled a vacuum created by the decline of the political parties as the primary mediating institution between politicians and the public (Patterson, 1993; Kerbel, 1995). With the introduction of direct-vote primaries to select presidential nominees after the 1968 election, political parties were forced to appeal to heterogeneous and widely dispersed statewide audiences and, in conditions of a mass (or direct) democracy, became dependent upon mass media to reach voters (Patterson, 1980). This situation amplified the press' role in elections and has allowed political correspondents to act as a kind of screening committee or filtering mechanism for presidential aspirants (Schudson, 1983; Davis, 1990). Media institutions are thus held to be in direct, competitive opposition to the political parties (Davis, 1990).

Davis (1990) has labeled this critique of journalism "media intrusion theory" and notes that it draws on theories of institutionalism developed by political scientists. In this analysis, media are evaluated as social institutions that should be expected to support political institutions, especially the parties, by allowing candidates to base campaigns on "issues" rather than press-defined priorities (Davis, 1990). Journalists instead, following professional norms and practices that value coverage of individuals over institutions, frame the campaign in competitive or personal terms and "devote considerable space to discussion of campaign strategy and to human interest coverage of the private lives and character of the candidates" (Davis, 1990:161). Broadcast journalism, in this view, is especially structured to inform voters more about compelling stories and charismatic personalities than policy issues or party positions (Chaffee et al., 1994). Ranney (1983) maintains that the shift to television as the dominant medium of political communication may itself be the primary explanation for the decline in the salience and influence of the parties.[3]

These views underscore what Chaffee and Hochheimer (1985) characterize as an elitist, top-down view of the political process--the first normative orientation. More contextually, they evoke Lippmann's (1922/1965) ideas on the limits of the reasoning powers of ordinary citizens, and his argument that journalism could best serve society by supplying experts with information needed to make intelligent governing decisions. Modern media intrusion theory thus complements Lippmann's "elite pluralism." It is interesting to note the expansiveness and pull of the media intrusionist view. As to its expansiveness, champions of media intrusion theory are not confined to political science. They appear in slightly different form in the field of communication wherever an assumption of strong media effects and a robust normative view of society (i.e. what makes for a good society) intersect. Neil Postman's (1985) critique, Amusing Ourselves to Death: Public Discourse in the Age of Show Business, about the negative social implications of an entertainment-oriented media, and Lichter, Rothman & Lichter's (1986) survey of media practitioners, The Media Elite: America's New Power Brokers, "proving" that journalists have an overtly partisan or liberal bias, are just two examples of this genre.

As to its allure, recent communication research continues to validate the intrusionist position. Indeed, we do not have to look farther than some of Chaffee's own work. In an analysis of television interview and political call-in talk shows in the 1992 presidential election, Chaffee, Zhao & Leshner (1994) suggest that the so-called "new media" contribute to the gradual erosion of party authority. They observe: "The undermining of political parties as electoral institutions is a long-term effect of television feared by thoughtful political scientists (e.g. Ranney, 1983), and the extensive interview shows of 1992 seem to have done nothing to reverse this trend" (Chaffee et al., 1994:318). The assumptions of political science continue to provide the foundation for analysis of the media/politics interface, even when conducted from a communication perspective.

The Neoconservative Critique of Mass Media

Carragee (1993) has identified advocates of the media intrusion position as neoconservative critics of mass media. The neoconservative approach, according to Carragee, holds that "the American press has become a permanent opposition, disparaging governmental authority, criticizing the functioning of a market economy, and producing political apathy and cynicism among the public" (1993:339-340).[4] Rising levels of distrust toward politicians, and a disgust of politics in general, are directly attributed to the antiinstitutional themes and relentlessly negative portrayal of political elites by the press. For neoconservative critics, the line of demarcation between a fair and balanced press and a biased, openly antagonistic press is the Vietnam War period (roughly, the late 1960s), when the press began to venture beyond official sources of information and started to become more interpretive in orientation (Hallin, 1985).

This period of time coincides with the rise of neoconservatitism as a political perspective. In 1970, Dorrien (1993) notes, the editors of Dissent magazine began to actively look for a term to describe "an assortment of former liberals and leftists who had recently moved to the Right" (p. 1). Regardless of their exact location on the political spectrum (e.g. the right wing of the Left or the left wing of the Right), neoconservatives were united in their disillusionment with the Johnson administration's War on Poverty and Great Society social programs--not for their intended effect of helping the have-nots and creating a more egalitarian society but for encouraging the formation of "a 'New Class' of parasitic bureaucrats and social workers" (Dorrien, 1993:1).

Whereas traditional conservatives favor the outright elimination of the welfare state and a return to the classical liberal conceptions of unfettered free enterprise and the attainment of status and power through the ownership of private property and the accumulation of capital, neoconservatives prefer a minimal welfare state and seek to increase their influence primarily through organizational position (Dorrien, 1993). Hence, their substantial presence in political parties, public policy institutes, opinion journals, think tanks, and the like. As a critique of the role of intellectuals in modern society, the neoconservative conception of the New Class extends arguments developed by Schumpeter (1942) and Hayek (1949) during the New Deal era of American politics (Dorrien, 1993). Over time, the neoconservative movement has pursued a twofold political-economic and cultural agenda, which Habermas (1989) has identified as opposing communism (or disparaging socialism in favor of capitalism) and supporting the republican theory of democratic rule by traditional elites (with traditional values).[5] Attacks on the "liberal media" are a common theme throughout much neoconservative criticism, which accuses the news media--television in particular--of possessing a political ideology that is deeply critical of political and economic authority (Lichter, Rothman & Lichter, 1986).

Neoconservative critiques of television gained currency in the aftermath of the Vietnam War. Braestrup (1977, cited in Carragee, 1993) contends that negative coverage of the Tet Offensive in Vietnam transformed an American military victory into a troubling psychological defeat. Critical reports of the war, so this argument goes, eroded public support for American foreign policy and contributed to American defeat (Rothman, 1979). The influence of this argument can be seen in subsequent American military interventions, which have been characterized by a high degree of media management. Robinson (1981) directly locates the problem of America's crisis of confidence during the post-Vietnam War, post-Watergate era with network news. "Our doubts about ourselves and hostility toward our institutions would be far less severe were it not for the images we receive from electronic media, more specifically, from network journalism" (Robinson, 1981:314).

Patterson, who has built a career assailing the press' role in three influential, and suggestively titled, books--The Unseeing Eye (1976, with McClure), The Mass Media Election (1980), and Out of Order (1993)--is perhaps the leading neoconservative critic of media and politics writing today. Patterson (1993) regards the press as a jaded, miscast institution, one that is neither democratically accountable nor very well suited for coalition building--a major function of elections. He observes:

> The proper organization of electoral opinion requires an institution with certain characteristics. It must be capable of seeing the larger picture--of looking at the world as a whole and not in small pieces. It must have incentives that cause it to identify and organize those interests that are making demands for policy representation. And it must be accountable for its choices, so that the public can reward it when satisfied and force amendments when dissatisfied...The press has none of these characteristics (1993:36).

Similar to other neoconservative media critics, Patterson argues that the problem of the modern presidential campaign lies primarily in the role assigned to the press (and not with other important players in the process such as political action committees or the political consulting or advertising industries). The press, he says, is ill-suited for the role of democratic broker and imposes its own values on American politics.

Journalistic values, Patterson (1993:52) asserts, are at odds with political values, which results in a news agenda that misrepresents what is at stake. They also introduce an element of "random partisanship" (or personality politics) into campaigns. Moreover, election news drives a wedge between candidates and voters rather than serving to bring them together. Hence, political journalism as currently practiced violates the third normative orientation of political science--that media coverage should be comprehensive, scrupulously fair and politically balanced. Other writers have not been so circumspect. Rothman, for instance, has written that the national news media's political role is not only inappropriate, it has directly "contributed to the decay of traditional political and social institutions" (1979:346).

The Adversarial Argument

Another tenet of the neoconservative argument, and one which exacerbates the normative assumption of political fairness, is that news media engage primarily in an adversarial relationship with political power (Patterson, 1980, 1993; Davis, 1990; Carragee, 1993). While the oppositional position represents only a partial reading of the intricate press/politics relationship, it resonates with a wide audience (not the least of which are journalists) because both the press and political actors view themselves in these terms (Rivers, 1970; Blumler & Gurevitch, 1981). The metaphors of the press as the "Fourth Estate" or "watch dog" on government stem from this professional ethos or ideology. Champion of the public's right to know, the adversarial press sees itself as an independent check on the political system, a seeker after truth that ferrets out evidence of official corruption and ineptitude and acts as a guardian against tyranny.

There are several structural limitations to the adversarial model. First, as Blumler and Gurevitch (1981) point out, it accommodates just one mode of interaction between media and politicians: antagonism. Secondly, the adversarial explanation ignores the mutual dependency that journalists share with political actors; it fails, as Grossman and Rourke (1976) observe, to provide a "mechanism for understanding the enormous amount of cooperation and even collaboration that takes place in the interaction between the press...and the government." Finally, if political message-making is a joint enterprise, a strict adversarial stance could not be sustained for any length of time without eroding the very basis of the relationship (Blumler & Gurevitch, 1981).

More broadly, critical theorists assert that the rise of welfare state capitalism stripped the press of the independent position it earlier enjoyed in relation to dominant social interests. While the technology of mass production and distribution may have democratized the market for news, the production of news became centralized, placing the press under corporate control (Hallin, 1985). Because of its close association with economic power, "modern journalism is characterized by a great reverence for political authority" and "revolves like a satellite around the center of political power" (Hallin, 1985:309). Consequently, the mainstream media, Hallin argues, has developed an "intimate institutional connection with the state, despite the absence of formal state control" (1985:305).

Despite these contradictions, the adversarial model persists primarily because it occupies an ideological position, that is, it prescribes how journalists should normatively regard leading political actors and governmental institutions: as adversaries (Blumler & Gurevitch, 1981:470). The adversarial model's dominance among journalistic practitioners makes it attractive for use by political scientists. Moreover, Carragee argues that the attention and prominence the neoconservative thesis of oppositional media has achieved in recent years "may owe more to the conservative political climate in the United States than to the adequacy of its arguments" (1993:341).

The Problem of Participation

As mentioned above, the normative assumption of strong media effects, that media exposure has discernible (typically harmful) behavioral effects on audiences over time and contributes to the erosion of public confidence in institutions, is fundamental to neoconservative critiques of media and society. When combined with the tendency to generalize and make broad conclusions--the fourth normative orientation outlined by Chaffee and Hochheimer--the strong effects argument becomes a sweeping indictment of media in society. This position is in full evidence in a Washington Post report of the 1995 American Political Science Association convention that appeared with the headline, "TV tattered nation's social fabric, political scientist contends" (Edsall, 1995). The political scientist, Harvard professor Robert D. Putnam (known for his "bowling alone" thesis), asserts that the introduction of television into American society in the 1950s is a major factor in the subsequent decline of both social trust and membership and participation in civic organizations. Across educational level, Putnam found a negative correlation between the amount of television exposure and the level of reported social trust and number of groups an individual joins

(Edsall, 1995; Putnam, 1995).[6] Thus, he argues, the country's supply of social capital, or citizen engagement in public affairs, has eroded. This privatization of public life through technological means, to quote Ithiel de Sola Pool, "will promote individualism and will make it harder, not easier, to govern and organize a coherent society" (Pool, 1990:262, cited in Putnam, 1995). Putnam's position typifies the bias of political science in studies of media and democracy, and one does not have to look far or very closely to see a strong normative orientation at work.

Putnam's argument points to two assumptions driving much political communication research, namely, that people should be concerned and accepting of the political system and that the role of media should be conceived in terms of what they might do to people rather than what people might be doing with media (Chaffee & Hochheimer, 1985). In Putnam's research design, television exposure is conceptualized as an independent variable acting on the dependent variable, political participation, and does not constitute active civic engagement. Instead, television is seen as the "800-pound gorilla of leisure time" (Robinson & Godbey, 1995, cited in Putnam, 1995). Television thus displaces "nearly every social activity outside the home, especially social gatherings and informal conversations" (Putnam, 1995:679). (Newspaper reading, on the other hand, is associated with high social capital, as it is positively related to social trust and group membership.)

The problem of declining civic participation may in part be methodological; that is, participation depends to a large degree on the way criterion variables are selected and defined. Political science has defined participation primarily as active outdoor behaviors rather than, say, cognitive involvement. Consistent with this view, Kerbel (1995) writes:

> Television viewing is a passive diversion, something we can do while cradling a beer. Involvement in politics is an active enterprise, something we do with our neighbors. The two do not mix very well (p. 131).

Verba and Nie (1987) identify four major participation variables: voting, campaign participation, community activities, and leader/legislator contact. By defining democratic legitimacy almost strictly in terms of active behaviors, chief of which is voting (Chaffee & Hochheimer, 1985), political science has perhaps clung to outdated notions of popular consent. Historical institutional requirements, stemming from the normative orientation of analyzing politics in terms of the needs of the political system, have been placed ahead of the evolving political ecology, in which mass media play an increasingly central role.

Traditional conceptions of political participation, then, may not go far enough in explaining actual citizen involvement in democratic processes. Like liberal democratic theory itself, which has been under attack for failing as a theoretical justification of individualism in a highly stratified, corporatized industrial society, traditional participation measures may be inadequate indicators for explaining the changing relationship of the citizen to the (late) modern state. Rather than "relegating media-related activity to the status of a minor mode of political participation," as political science has through the National Election Studies (Chaffee & Hochheimer, 1985:284), media involvement might instead be treated as a primary or major mode of civic participation, that is, as a dependent variable that is an integral component of popular consent.

From this perspective, the question of democratic legitimacy and political stability in the face of low voter turnout, decreased traditional participation, and a largely politically uninformed mass electorate (Neuman, 1986; Putnam, 1995), may be explained by an important criterion variable that isn't being measured: civic engagement through media. For the mass electorate, regular involvement with media may be taking the place of direct, sporadic involvement in politics. Therefore, to ask what traditional indicators of political participation say about the state of democracy may be posing the wrong question. Concerned students of media and politics might instead ask how citizens connect with and legitimate the political system in news ways, especially through mass media. As Muir (1992) suggests, in a changing political-media environment, it is important to ask "whether there is an actual decline in participation, as opposed to a decline in our traditional conceptions of what citizen involvement is in an evolving technological society." It seems increasingly plausible to argue that media use itself, especially viewing, listening, and calling politically oriented interactive call-in television and radio talk show programs, is a form of civic participation for a growing segment of the electorate.

Conclusion

Despite the interdisciplinary nature and diversification of political communication research into such areas as uses and gratifications, agenda setting, reception analysis, and critical theory (Nimmo & Sanders, 1981), the field has not entirely left behind the once (and many say still) dominant "voter persuasion paradigm" of media having effects on voting choices (Nimmo & Swanson, 1991). As this paper has shown, research at the media/politics interface is driven by basic normative orientations, or biases, that stem largely from the disciplinary assumptions of political science but which are embraced by communication. Whether explicit or implicit, these biases frame many of the questions, and thus many of the findings, of political communication research. Moreover, more than one normative orientation may be at work in analyses of media and democracy at any one time.

As Graber (1987) suggested almost a decade ago, political communication researchers on both sides of the disciplinary divide "need to become better acquainted with each other's work so that their combined efforts can produce superior findings in this complex and fluctuating research area" (p. 10). Although the problem of "shocking mutual ignorance or disregard" between political science and communication research that Graber observed in 1987 has somewhat subsided since that writing, the media/politics interface remains underdeveloped in large measure, we would argue, due to the constraints placed on research by the four normative orientations discussed above. One step in overcoming this impasse may involve a fuller integration of communication research into political analysis. Indeed, the political theorist Zolo (1992) argues that, for democratic theory to be properly retooled to suit contemporary conditions, political theory "should turn its central most attention to the political effects of mass communication" (Zolo, 1992:153). These effects, this paper has argued, are more variegated and subtle than either neoconservative arguments or the voter persuasion paradigm has been able to find.

A second step to discerning a truer model of the role of mass media in politics and finding media "effects" may lie in a reconceptualization of the problem. For a more realistic political perspective on media to fully develop, research designs should increasingly acknowledge that mass media are not only central to democratic theory, they are increasingly indistinguishable from modern political processes themselves. In this view, mass media must be regarded as important as traditional political institutions; a violation of a normative assumption, perhaps, but arguably one with a great deal of representational validity. As Graber (1989) notes, media coverage constitutes "the very lifeblood of politics because it shapes the perceptions that form the reality on which political action is based. Media do more than depict the political environment; they are the political environment" (p. 238). Media's time as a dependent variable may have come.

Endnotes

[1] We have reordered Chaffee and Hochheimer's list of assumptions slightly, making the top-down view of communication and politics (their third item) our first.

[2] In recognition of the growing importance of communication research to politics, Political Communication, a political science journal devoted to the study of media and politics, was founded in 1984. In 1993, the interdisciplinary journal came under the joint sponsorship of the political communication divisions of the American Political Science Association (APSA) and the International Communication Association (ICA), with political scientist Doris Graber, a former journalist, serving as editor (Graber, 1993).

The simultaneous founding of divisions of political communication within APSA and ICA and the joint publication of Political Communication "signaled the formal dismantling of the Maginot Line" separating the two disciplinary approaches to media and politics (Jamieson & Cappella, 1996:14); however, an informal divide is still widely in evidence.

[3] Although Pomper (1977), Schudson (1983) and others have persuasively argued that the decline of the political parties in the United States has varied and diverse causes, Ranney's position that the press played a leading role in the parties' demise is typical of writers in the media intrusion tradition.

[4] Neoconservative assessments that media are heavily critical of the market are questionable; if anything, media seem to celebrate the capitalist structure (of which they are an integral, dependent part) and only infrequently challenge the free enterprise system and the implications of economic policies that favor corporations over average citizens (Hallin, 1985).

Occasionally some media coverage of business may seem critical but not due to press hostility toward economic power. As Hallin (1985) observes: "Certainly no major news organization is ever likely to become an open critic of capitalism, but the purpose of a news organization is to make profit, not politics, and there is no reason to assume that the narrow economic interest of the corporation will always coincide with the political interest of the system" (p. 140).

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[5] Dorrien (1993) defines neoconservatism as "an intellectual movement originated by former leftists that promotes militant anticommunism, capitalist economics, a minimal welfare state, the rule of traditional elites, and a return to traditional cultural values" (p. 8).

[6] Correlations, of course, are only one component of causality and never "prove" anything by themselves. While they can lend support to an argument, they do not rule out the vast number of potential third variables that could also determine the relationship.

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Paring down to the Bare Bones of Communication Phenomena with Cognigraphics: An Elemental Analysis of Headline Impact on Ad Recall

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ABSTRACT

Cognigraphics is a methodological approach and analytic scheme designed to break down ideas (e.g. message) into its elemental components operationalized as objects, attributes and relationships (spatial or temporal). Headlines of 240 print ads tested for recall by Gallup and Robinson were analyzed. Findings indicated that headlines with a single focus (either consumer or brand) obtained higher recall than those with both, and headlines with a single relationship (either spatial or temporal) obtained higher recall than those with both.

Advertising recall
Cognitive processing
Content analysis
Headline impact

Paring down to the Bare Bones of Communication Phenomena with Cognigraphics: An Elemental Analysis of Headline Impact on Ad Recall

Observing what is really going on in communication is invariably shadowed by previous understandings, existing concepts describing the phenomenon in question, and knowledge of the language used to delineate the circumstance. Chaffee (1991) writes that an instance of communication is not entirely observed directly but is also imagined. No observation is purely empirical and free from ideation (Kaplan, 1963). Therefore, it is not surprising that so much of what passes as communication orthodoxy today remains amorphous, disparate, inconsistent, and un-unified. To wit, there is no unified theory of communication. The challenge for communication researchers is to develop a capability to think together about what is observed (Carter, 1992). This study delineates cognigraphics as a methodogical approach to observing ideas and applies it in the context of analyzing something concrete and tangible, advertising headlines.

Cognigraphics

Communication theorist, R. F. Carter observes that ideas carry implications of consequences (Carter, 1992). One has to always answer the inevitable "so what?" question. Keeping audiences guessing as to "what happens next" is an historic plot device to sustain attention. "And so on," conveys the iterative toil of robotic industry. Ideas also impart points without which communicating would not have survived (Carter, 1992). To get the point, to grasp the message, to comprehend the issue is to accomplish the basic purpose of communication.

Cognigraphics is an analytic scheme designed to break down ideas (e.g. sentence, picture, or message) into its respective elemental components and is a process akin to analyzing compounds in terms of their atomic elements (Carter, 1991; 1992). By understanding the basic elements or building blocks presented, a clearer picture emerges of *how* a message was constructed which gets at the cognitive process.

Elements. The basic elements of ideas consist of (1) objects, (2) attributes and (3) relationships (Carter, 1991; 1992). Objects are animate and inanimate things e.g. person, animal, house, road, car, pill, perfume, camera, copier. Objects also include brands such as Audi and Pepsi. Objects may also include imagined or conceptual things e.g. dreams, sleep, income or security.

Attributes are qualities used to describe objects e.g beautiful (you), smart (machine), different (taste), etc. Attributes may be complex descriptions such as "AARP member" who qualifies for an American Airline special discount. They may also describe conditions which persons find themselves in such as "you are in trouble" or "you need financial advice" or "you should see an attorney."

Finally, relationships are the connections between objects and/or attributes. Two basic relationships are proposed -- spatial and temporal. In a spatial relationship, objects or attributes may occur *inside* or *outside* other objects or attributes. For example in the headline, "Mitsubishi Galant. Filled with your favorite things." The objects consist of first, "Mitsubishi Galant," and second, "things." Galant is *outside* "things." "Favorite" is an attribute *inside* "things." In summary two spatial relationships exist -- "Galant" is *outside* "things" and "favorite" is *inside* "things."

In a temporal relationship, objects or attributes are connected in a sequence and may occur *before* or *after* other objects or attributes. For example, in the headline, "Current Income. Long-Term Growth. CGM Realty Fund," the object, "CGM Realty" is *before* each of the objects, "income," and "growth." The attributes, "current" and "long-term" are *inside* the objects, "income" and "growth" respectively. Four total relationships exist -- two ascribe the attributes *inside* "income" and "growth" and two relate the temporal relationships of CGM occurring *before* "income" and "growth."

Heuristic. Cognigraphics has been used productively to analyze the effectiveness of various media messages and how audiences perceive messages and media. Results from a recent study foreshadowed George Bush's campaign decline among young adults based on their perceptions of the presidential debates and how they associated the candidates with objects and attributes (Carter and Stamm, 1993a). In a study of Gulf War opinions, cognigraphics was used to identify major consequences of the event for this country (Carter and Stamm, 1993b).

The analytic scheme was applied in interpersonal communication to analyze conversations. It found a curvilinear relationship between the number of ideas contributed by a conversation initiator and the number of ideas elicited from the conversation participant (Stanton, 1980). The most constructive conversational exchange would occur when a moderate number of ideas was presented. The finding has implications for those involved in group decision making processes as well as for producers of political, literary and other messages whose objectives are to encourage constructive debate.

Cognigraphics has also been used to specify and locate membership, participation and group affiliation. Using the spatial connector to identify persons as belonging/residing inside or outside a physical place (e.g. a neighborhood), organization (e.g. political party) and/or institution (e.g. church), researchers have categorized individuals as indicating or not indicating membership in these respective communities (Elway, 1983; Stamm, 1985; Stamm and Fortini-Campbell, 1983; Weis, 1993; Weis and Stamm, 1982). In this study, cognigraphics will be used to analyze advertising headlines for their impact on effectiveness.

Advertising content

Advertising researchers have investigated a myriad of factors influencing the effectiveness of print advertising, and have provided many insights for developing successful advertising copy. Research has found that in general, message content and executional form exert sizeable effects on advertising memory (Holbrook and Lehmann, 1980; Stewart and Furse, 1984). Key message content factors which enhance memorability consist of focusing on product benefits (Burton and Purvis, 1992; Stewart and Koslow, 1989) and stressing brand differentiating messages (Stewart and Furse, 1984; Stewart and Koslow, 1989).

Executional devices which promote recall include both mechanical measures (e.g. sentence length or picture space) and qualitative message features (e.g. fear appeal or humor). Pictorial stimuli have led to higher ad recall (Edell and Staelin, 1983; Starch, 1966; Unnava and Burnkrant, 1991); factors positively correlated with print ad recognition consist of placement on an inside back cover, color, number of photographs, status appeal and attention getting tactics (Holbrook and Lehmann, 1980). Recall has also been enhanced by concrete messages (Macklin, Bruvold and Shea, 1985) and by ads specifying relations between copy and brand (Schmitt, Tavassoli and Millard, 1993).

In summarizing the major findings for application, guidelines compiled by copy testing researchers recommend that advertisers: "offer a major benefit," "make it easy to see and read," "establish audience identity," "attract by being new," "be believable" and "stress what is unique." (Burton and Purvis, 1992, p. 5-6).

How can message creators make the most of these guidelines? The research record also reports that lower recall is expected when a lot of information is presented which includes health data, attributes of the main message and competition comparisons (Stewart and Furse, 1984). This finding begs the questions: How much information is too much information? Should the ad focus on the product or the audience/consumer or both? How many attributes should be included? How many other points can be made? How many relations should be specified about the brand?

This exploratory study proposes to address the above questions by examining the elements of ad construction. It begins with the headline because of the latter's ability to capture the attention of the reader (Howard and Barry, 1988). It represents an important starting point because previous research has not found any relationship between headline length, type or space and ad recognition (Holbrook and Lehmann, 1980). The study is part of a larger program of research which will investigate other print ad components such as visual, copy blocks and total ad.

Study Objectives

The present study proposes to analyze the number and nature of elements in a sample of print advertising headlines and their influence on the advertisements' recall. In doing so, it attempts to more clearly identify the number of elements and nature of elements in headlines which contribute to more effective ads. The research questions are as follows:

Q1: What is the optimal number of ad elements in a headline to promote ad recall?

Q2: Will headlines with consumer-focused elements have higher ad recall than brand-focused ads or ads with both consumer- and brand-focused elements?

Q3: Will headlines with temporal elements have higher ad recall than ads with spatial elements or ads with both temporal and spatial elements?

Q4: Will headlines focused on either the consumer or brand, combined with either spatial or temporal elements have higher ad recall than combinations of both consumer/brand and spatial/brand elements?

Method

The Gallup & Robinson Company, through its Magazine Impact Research Service, routinely tests advertisements for a variety of clients. Results of some of their tests have been published in *Which Ad Pulled Best?* a popular advertising textbook/workbook for students. Each edition of *Which Ad Pulled Best?* features forty pairs of print ads tested for recall. For purposes of the present study, the ads were content analyzed in each of the three most recent editions of the book (5th, 6th and 7th) which provided the study with 240 (3 X 40 x 2) ads for the present study. These ads were content analyzed for the following:

Cognigraphic elements. Each ad headline was coded for the following items necessary for the cognigraphic analysis:

1) Number of *objects*, *attributes* and *relationships*. These three were then summed to

obtain the total number of elements.

2) In cases where the *consumer* was an identified object in the headline:

(a) Spatial relationship: whether the consumer was *inside* something else, *outside* or both *inside* and *outside*;

(b) Temporal relationship: whether the consumer was *before* something else, *after* or both *before* and *after*.

3) In cases where the advertised *brand* was an identified object in the headline:

(a) Spatial relationship: whether the brand was *inside* something else, *outside* or both *inside* and *outside*;

(b) Temporal relationship: whether the brand was *before* something else, *after* or both *before* and *after*.

The recall measure. Two recall scores are reported in the instructor's manual for *Which Ad Pulled Best?*:

(a) The recall score for each advertisement;

(b) The ad recall norm for the particular product category.

On the basis of these two numbers, a recall index was calculated by subtracting the recall norm from the recall score and dividing by the mean of all recall norms. This was an attempt to standardize recall scores across the sample of advertisements analyzed and was a necessary step because of the variety of products and product categories tested by Gallup & Robinson and the wide range of recall norms. The mean of the recall norm was used as the demoninator because it was a score to which all the product categories contributed and the resulting parameters of the outcome recall index which it produced came closest to approximating those for z score ($\underline{M}$= 0.173, $\underline{SD}$=0.562, range=2.87).

Other variables. Obviously, recall may be a function of a number of ad characteristics other than the headline. Since this exploratory analysis focuses only on the cognigraphic elements in the headlines, it was important to at least be able to account for the possible impact of certain other headline and ad characteristics. Each ad headline was also coded according to whether *idiomatic* language was used, and whether the language used was *concrete* or *abstract*. Other headline characteristics such as type of headline based on a classification scheme (Dunn, Barban, Krugman and Reid, 1990), headline content (news, how-to, question, command, other) and method of presentation (direct, indirect) were also coded and will be examined in a later study.

As a small start toward exploring the impact of other design elements, the *visual* proportion of the ad (<60%; 60%-80%; >80%) was recorded. Also, each was coded for the presence or absence of a slogan. Finally, the product category being advertised was recorded. Detailed coding instructions are available from the authors.

Coder reliability. Three coders analyzed the 240 ads independent of each other. An additional two coders were used to measure intercoder reliability, which was based on a subsample of 50 advertisements. Coding for all non-cognigraphic variables produced inter-coder agreements of well above 90%. Inter-coder agreement for the number of cognigraphic elements in the ads averaged 84% while that for spatial and temporal relationships was 64%. In view of the exploratory nature of this study, the probability level was set at a 90% level of confidence for the statistical tests performed to determine the impact of various cognigraphic elements on recall.

Analyses. Several data transformations were performed to refine the variables. Data from consumer-focused (i.e., object: consumer) and brand-focused (i.e., object: brand) headlines were combined to arrive at the following overall measures:

Consumer focus: Consumer spatial (inside, outside or both), plus consumer temporal (before, after or both).

Brand focus: Brand spatial (inside, outside or both), plus brand temporal (before, after or both).

Spatial relationship: Consumer spatial or brand spatial.

Temporal relationship: Consumer temporal or brand temporal.

The occurrence of ads exclusively containing the following elements -- consumer inside/outside/both or brand inside/outside/both or consumer before/after/both or brand before/after/both -- was too low for further analyses. Statistical tests included pearson correlations, t-tests and analysis of variance tests and were applied where appropriate.

Findings

The ads analyzed represented a wide variety of 16 product categories ranging from the frequently occurring categories of photo/electronics (16.7%), automotive and food (both 13.3%), to medical/drugs (5%), clothes (3.3%), jewelry (1.7%) and cleanser (0.8%). A majority of the ad headlines was written in concrete language (77.3%), sans idioms (70.8%), and less than half (43.3%) featured a slogan. The recall index was positively related to the proportion of ad visual ($r=.14$, $p<.05$) but not to the presence of a slogan, nor to concrete or idiomatic language in the headline.

Table 1 shows the distributions of the element variables. The average headline had 2.4 objects (range: 1-8), 1.6 attributes (range: 0-8), 2.5 relationships (range: 0-9), and 6.5 total elements (range : 1-20). Data analysis showed that the number of objects, attributes and relationships had no impact on the recall index. An inverse relationship between the total number of elements and the recall index seemed to be present (1-4 elements: 0.227 recall; (5-9 elements; 0.137 recall index and 10+ elements: 0.087 recall index) although this relationship was not statistically significantly at $p < .10$.

Table 1 here

Table 2 shows the incidence of spatial and temporal relationships when the consumer was an object or when the advertised brand was an object. The sample had more headlines with brand-focused ads than with consumer-focused ads but the occurrences are not mutually exclusive. Spatial measurements show a much higher incidence of *outside* than *inside* relationships. Temporal measurement showed a higher incidence of *before* relationships in the case of brand objects.

Table 2 here

There was no significant difference in recall between ads with consumer-focused headlines and ads with brand-focused headlines, nor between ad headlines with a spatial or a temporal relationship. Table 3 shows the differences in recall between ads with headlines that had a single or double (consumer and brand) focus and those that had a single or double (spatial and temporal) relationship. The third comparison contains combinations of single and double foci, single and double relationship. In all three cases, the more complex cognigraphic elements are associated with lower recall ($p < .05$ to $< .10$).

Table 3 here

Discussion

The discussion begins with a recap of the four research questions:

Q1: What is the optimal number of ad elements in a headline to promote ad recall? A weak relationship was found between total number of headline elements and ad recall which indicates that when the number of headline elements ranges from 1 to 4, recall appears to be highest as opposed to five or more elements. Thus, fewer appears to be better. However, the result should be validated with further testing.

Q2: Will headlines with consumer-focused elements have higher ad recall than brand-focused ads or ads with both consumer- and brand-focused elements?

There was no overall difference between ads with consumer-focused and brand-focused headlines. However, there is evidence that ads with headlines focusing singly on either the consumer or the brand may obtain higher recall than ads with headlines focusing on both the consumer and the brand.

Q3: Will headlines with temporal relationships have higher ad recall than ads with spatial relationships or ads with both temporal and spatial relationships?

While no recall difference existed between ads with spatial or temporal headlines, results showed that headlines featuring either spatial or temporal relationships may obtain higher recall than headlines with both spatial and temporal relationships.

Q4: Will headlines with either consumer or brand focus, combined with either spatial or temporal elements, have higher ad recall than headlines combining consumer- and brand-focus with spatial and temporal elements?

The answer appears to be yes. A single focus/single relationship combination resulted in higher recall than single focus/double relationship, double focus/single relationship or double-focus/double-relationship combinations.

The recommendation offered by copy testing researchers to advertisers is that that higher recall may be associated with a smaller variety of elements in an ad's headline. The study result, while in the same direction, should be validated with further testing. When ad headline focus was considered, emphasis should be on either the brand or the consumer and not both. Also, the product benefit or uniqueness in a headline should stress a spatial or temporal relationship but not both.

Cognigraphic analysis permitted the identification of elemental components in ad headlines and revealed how the ads were constructed cognitively. By relating these components to ad recall, the optimal characteristics leading to ad memorability could be ascertained. As such, cognigraphics shows promise as a tool for examining ads at a basic elemental level, a level of cognitive construction which may provide further guidelines for developing effective advertisements. Cognigraphic analysis will also permit the examination of the ideas presented in print ad in total -- headline, visual, copy, slogan, logo, etc. -- and may prove to be a productive instrument for advertising research.

From this study there appears to be a need to further investigate possible differences between the impact of spatial versus temporal relationships with specific consumer or brand foci. At present, the low frequency of these occurrences inhibited such an analysis. Such investigations could take one or both of two paths:

(a) Additional content analyses could ascertain the relative incidence and impact of cognigraphic elements among all visual and verbal elements in print advertisements. As confirmed in this study, visual impact on recall is important; but other ad variables, such as copy, slogan and logo, visual and total number of ad elements should be investigated.

(b) Experimental research could test for the presence of one or more cognigraphic elements in one or more ad conditions by controlling for a number of other variables. In this way the present study's limited generalizability owing to the nature of the sample -- non-random available ads in three compendia of tested ads -- could be avoided.

A main study limitation consists of the relatively low inter-coder agreement regarding spatial and temporal relationships. Previous studies using cognigraphics have attained inter-coder reliability coefficients of over 90% (Carter et al. 1993a, 1993b; Stanton, 1980). In the present study, coders found the current cognigraphic content analysis scheme clear and the explanation and examples helpful. However, when faced with actual ad headlines, the principles seemed to be difficult to apply. Therefore, further work on clarifying the content analysis coding scheme may be needed. As well, substantive training of coders and additional practice sessions and discussion may be necessary in the future in order to help coders better apply the coding principles. It is not surprising that more practice at observing is sorely needed. Since this is an exploratory study, these findings could be interpreted as indicative of trends and will be further examined in a follow up study with stricter standards of reliability. Much awaits investigation.

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Table 1: Frequency Distribution of Headline Elements

Number of elements	Object elements %	Attribute elements %	Relationship elements %	Total elements %
0	0.0	14.0	6.4	0.0
1	19.9	40.3	20.8	1.3
2	41.1	30.1	28.0	4.2
3	24.6	9.3	25.8	11.4
4	7.6	4.2	11.4	4.2
5	3.8	.8	5.1	24.6
6	2.5	.4	.4	5.5
7	0.0	.4	.4	22.0
8	.4	.4	1.3	3.4
9	0.0	0.0	.4	11.0
10+	0.0	0.0	0.0	12.3
Total	100.0	100	100.1%*	99.9%*
Mean	2.4	1.6	2.5	6.5

N = 236 (4 of the 240 ads had no headline)

* rounding error

Table 2: Distribution of Spatial and Temporal Relationships in Ad Headlines

	Object	
	Consumer %	Brand %
Spatial relationship		
absent	61.9	31.8
present	38.1	68.2
inside	2.1	9.7
outside	34.3	55.5
both	1.7	3.0
Total	100.0	100.0
Temporal relationship		
absent	65.7	46.6
present	34.4	53.3
before	14.0	36.0
after	19.1	14.8
both	1.3	2.5
Total	100.1*	99.9*

* rounding error

Table 3: Impact of Single vs. Double Foci and Single vs. Double Relationships on Ad Recall

	Recall Index	SD	N	t	p
Single focus (consumer or brand focus)	.206	.550	136	1.45	.10
Double focus (consumer and brand focus)	.097	.537	86		
Single relationship (spatial or temporal)	.230	.562	113	1.85	.05
Double relationship (spatial and temporal)	.095	.523	109		
Single focus/single relationship	.216	.563	102	1.32	.10
Double focus/double relationship, Single focus/double relationship, double focus/single relationship	.119	.530	120		

A Comparative Assessment of the Effects of Exposure to Media Reports and Political Ads on Voter Learning and Voting Intention

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A Comparative Assessment of the Effects of Exposure to Media Reports and Political Ads on Voter Learning and Voting Intention

To determine the positive influence of media coverage of an election campaign and the negative impact of the advertising campaigns of an issue intense presidential contest, we used structural equations to simultaneously assess 11 causal links between involvement, media reports exposure, political ads exposure, media reports attention, political ads attention, knowledge of candidates' issue stands and voting intention. Data from a survey of 452 adult residents of Jackson County in Illinois provided support for the hypotheses that exposure and attention to the coverage of the campaign helped the electorate to learn the candidates' issue stands and exposure and attention to political ads adversely influenced the accuracy of such knowledge.

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A Comparative Assessment of the Effects of Exposure to Media Reports and Political Ads on Voter Learning and Voting Intention

Patterson and McClure's (1976) conclusion that voters exposed to political advertising campaigns became more knowledgeable about candidates' issue positions and more certain about that knowledge than voters exposed to television news did not go unnoticed. In fact the implications of their conclusion for political communication scholars, political strategists and media critics were profound in that scholars across these fields reacted to the conclusion as a significant trend in the area of political communication.

For instance, a great deal of research has since compared the effects of political advertising campaigns and television news and often found different and conflicting results, suggesting perhaps differences across elections, regions, operational definitions of variables, and methods (Zhao & Chaffee, 1986; Zhao & Bleske, 1995; Zhao & Chaffee, 1995; Chaffee, Zhao & Leshner, 1994; Drew & Weaver, 1991). Media critics, on the other hand, reacted by vigorously campaigning, for over a decade, to lure news organizations to focus on the issues rather than on the horse race, polls and personalities. After criticizing the 1988 presidential election campaign as one of the most trivial and negative in recent history (Germond & Witcover, 1989) media critics' efforts partially paid off when several news organizations implemented innovative approaches to the coverage of the 1992 presidential election campaign (Meyer, 1993)

Different and valid measures of exposure are not only crucial to empirical media effects studies, but they also generate different media effects. Since Patterson and McClure's study, innovative approaches have been tried. McLeod and McDonald (1985) introduced attention as a measure of media use in their models which differentiated it from simple exposure. Similarly, when Chaffee and Schleuder (1986) combined attention and simple exposure in their analyses, attention contributed significantly to respondents' issue knowledge. Both studies, and other similar ones, provided evidence that individuals actually gain political knowledge from the media in general and hence contradicted Patterson and McClure's findings.

The measures of simple exposure, however, have not been consistently challenged.

Simple exposure have traditionally been measured by time spent with the media. Potter (1993) and other researchers take exception with such a measure citing its lack of specificity and claiming, among other weaknesses, that the use of respondents' estimates of the number of days they watch television or read news magazines carry with them assumptions that could not be reasonably justified. For instance, reading newspapers on a regular basis or watching television several hours every night of the week does not necessarily entail exposure to public affairs information. This study will use message exposure and attention as measures of media use. The dependent variables for this study are the traditional variables of the public's knowledge of candidates' issue stands and voting intention.

Because political advertising are so obtrusive, politicians use them as effective campaign tools for seeking national, state and local offices. However, voters' perceptions of political ads are at best mixed. Although voters perceive their favorite candidates' political ads favorably, they tend to think of the opponents' political ads as relatively superficial, generally misleading, and most likely negative attacks on candidates' personalities. And they are, though probably not all political ads. For instance, when the Bush team tried to appeal to voters' emotion during the Fall 1992 campaign in ways similar to the manner his team did with Michael Dukakis in 1988, the Clinton's advertising team responded to specific counterattacks within two days (Meyer, 1993). Therefore, constant exposure to political ads could possibly reduce the accuracy of voters' knowledge base of the candidates' issue stands. We propose that a comparative analysis of political ads and other media formats using simultaneous solving of the equations in a full LISREL model should provide empirical evidence of the potential negative influence of political ads on political knowledge and voting intention.

This study attempts to provide an example of how different media formats and analytic strategies can influence the results of media effects of media reports exposure versus political advertising exposure. Particularly, we will use message exposure instead of simple exposure in a path analytic model to compare the relative effects of exposure to media reports against exposure to political advertising on knowledge of candidates' issue stands and voting intention.

Literature Review

Involvement

Roser (1990) claims that researchers have increasingly included measures of involvement in effects studies because level of involvement determines whether the audience selects and actively processes information or passively allows messages to wash over them. However, she notes that researchers strongly disagree about what involvement is, when it happens, and whether it heightens or diminishes attitude change. Involvement has been defined as the individual's connection to an issue prior to exposure (Grunig, 1982; Petty & Cacioppo, 1986), a state of activation during exposure (Cohen, 1983) or the processing that results from exposure (Batra & Ray, 1985). Finally, involvement entails cognitive, affective and behavioral components (Roser, 1990; Lo, 1994), and different forms of involvement have different effects (Chaffee & Roser, 1986).

Studies suggest that individuals who are highly involved with a topic process information more deeply (Batra & Ray 1985; Greenwald & Leavitt, 1984; Roser, 1990; Chaffee & Roser, 1986) which may be particularly true for newspaper use (Lo, 1994). For instance, Petty and Cacioppo's elaboration likelihood model posits that greater issue involvement increases the probability that individuals consider, weigh and judge persuasive arguments carefully (Petty & Cacioppo, 1979, 1986). Similarly, Batra and Ray (1985) claim that a "learning hierarchy," in which knowledge gain leads to attitude change and consequently to behavioral change should occur only when psychological involvement is high and information is readily available.

This study takes its cues from Grunig and Childers (1988) and Petty and Cacioppo (1979), who have defined issue involvement in terms of perceived future consequences of the issue for the individual. Specifically, this study will measure issue involvement in terms of the degree to which the respondent believes the outcome of the '92 presidential election will affect them or someone close to them. Similarly, like Grunig and Petty and Cacioppo, this study treats issue involvement as an individual's connection to an issue prior to media exposure, and expects that issue involvement will be related directly to media use variables and only indirectly to media effects.

Exposure and Attention

The first category of media use variables is exposure to media reports and political advertising. Communication researchers have long been debating how media exposure should be measured (Troldahl, 1965; McDonald, 1990; Potter, 1990). The debate over how media use should be measured is not just one of semantics; studies have found different effects of the media depending on how media use is measured (McLeod & McDonald, 1985; Chaffee & Schleuder, 1986; Martinelli & Chaffee, 1995; Zhao & Bleske, 1995).

Most media effects studies have used simple exposure as their media measure, even though simple exposure may be the weakest predictor of media effects (Chaffee & Schleuder, 1986). Recent research suggests that exposure to particular content, such as news, is a stronger predictor of media effects than simple exposure. For instance, McLeod and McDonald (1985) found that exposure to public affairs content explained a greater percentage of the variance in political attitudes than simple exposure.

Potter (1993) has criticized cultivation researchers for relying on general television viewing as a measure of media use, noting that the underlying assumptions of cultivation that the media send uniform messages and that the viewer is nonselective may have held true during the days of network dominance, but cannot be supported in the age of VCR ownership and the explosion of cable channels. He advocated that exposure to specific content be included as predictor of media effects. Indeed, he found that exposure to specific types of shows better predicted media effects than general television exposure (Potter, 1990, 1993; Potter & Chang, 1990). Other studies have also found that exposure to specific types of shows are stronger predictors of cultivation effects than general TV viewing (Hawkins & Pingree, 1981; O'Keefe 1984).

Although a measure of a construct is based on its observable traits (Carmines & Zeller, 1979), the construct validity of exposure can not be established by measuring the total amount of time spent with the media alone because of lack of specificity (Salomon & Cohen, 1978). Others have refined the concept of message exposure further, by measuring it in terms of the audience's perceptions about the amount of information about an issue obtained from a mass medium

(Atwood, 1991; Salomon & Cohen, 1978). Several investigations, including political communication studies, have successfully used message exposure (Atwood, 1991; Braima & Sothirajah, 1993; Braima, 1993). The present study will use message exposure due to its compatibility with Salomon and Cohen's notion of exposure as perceptions of messages and Troldahl's conception of message unit as a measure of exposure (Troldahl, 1965).

The second category of media use variables is attention to media reports and political advertising. Several studies have suggested that media scholars use attention to communication messages in addition to frequency of exposure, particularly for television. As Chaffee and Schleuder (1986) note, one can watch television because it is on without paying particular attention to it. Therefore, attention may more adequately measure the effects of television viewing on political attitudes. Indeed, several studies discovered that attention to media content more strongly predicts attitudes and knowledge than simple exposure. For instance, while several studies found that television exposure is negatively correlated with knowledge (Becker & Whitney, 1980; Patterson & McClure, 1976) or is unrelated to that variable (Chaffee & Schleuder, 1986), studies of television news attention have found that television contributes to political knowledge (Martinelli & Chaffee, 1995; Chaffee & Schleuder, 1986).

When McLeod and McDonald combined measures of simple exposure with measures of attention as independent variables, they significantly improved knowledge prediction of their model and warned against "estimating media effects solely on the basis of simple exposure" (McLeod & McDonald, 1985, p. 26). Chaffee and Schleuder (1986) made strong recommendations regarding the use of attention in conjunction with exposure or alone. They started by recommending against "heavy investment of survey questionnaire resources in specific attention items," but clearly asserted that the use of "general attention to broad enduring categories of news and . . . media-oriented measures that refer to news in general but one source in particular" (p.102).

Their recommendations were taken seriously by numerous researchers. Almost all studies that combined attention with exposure as predictors used general attention to broad categories of news in particular news media (Braima & Sothirajah, 1993; Braima, 1993; McLeod & McDonald, 1985; Zhao & Bleske, 1995; Drew & Weaver, 1990, 1991; Weaver & Drew, 1993). This study will also use the same generic measures of attention to media reports and political advertising of the 1992 presidential campaign.

Knowledge and Voting Intention

Despite the apparent methodological weaknesses associated with Patterson and McClure's study, their conclusion about the superiority of political advertising campaigns over television news continued to influence political communication scholars for about two decades. Their combination of a content analytic study, which indicated that political advertisements contained four times more issue information than news did, and a cross-sectional survey, which found that a group with high exposure to political advertisements was more knowledgeable than a group with high exposure to television news, provided grounds for their conclusions (Patterson and McClure, 1976).

The studies were criticized on several aspects including: (a) content analytic studies could not have provided evidence for causality; (b) the sample of the audience research was based on one county (Onondaga, New York) which was not representative of the nation; (c) the analysis of the survey study was based on raw correlations which could not have established causality. Consequently some scholars deemed the results controversial and spurious (Kraus & Davis, 1981; Zhao & Chaffee, 1995).

Within the last half century, political communication scholars made major theoretical leaps regarding the media's influence on political processes and activity. It was claimed that the media reinforced existing predispositions and converted a negligible number of voters (Lazarsfeld, Berelson, & Goudet, 1948). But with an emphasis on political knowledge as an independent variable, stronger media effects such as awareness of salient issues during political campaigns, poll results of campaigns, and candidates' campaign strategies were identified by most political communication scholars (Graber, 1989). Currently, the integrative role of all mass media and their different formats, particularly in public affairs knowledge, are commonly acknowledged by several political communication scholars (Zhao & Chaffee, 1986; Zhao & Bleske, 1995; Zhao & Chaffee, 1995; Chaffee, Zhao & Leshner, 1994; Drew & Weaver, 1990, 1991; Weaver & Drew, 1993).

Patterson and McClure's study, however, raised questions concerning presentation formats of television, particularly, news versus political advertising. The implications of their conclusion led political communication scholars to shift their focus to various domains. For instance, some scholars made conscious efforts to avoid studying television news and focused instead on studying political advertising campaigns and televised debates (Just, Crigler, & Wallach, 1990). Others have attempted systematically to provide evidence of the media's effectiveness in helping voters become more knowledgeable about campaign issues (Roberts & McCombs, 1993; Zhao & Bleske, 1995; Zhao & Chaffee, 1995; Chaffee, Zhao & Leshner, 1994; Drew & Weaver, 1991). Even the shift in focus from the use of simple exposure alone to the integration of attention with simple exposure measures could at least partially be attributed to the negligible effects of earlier studies of television news (McLeod & McDonald, 1985; Chaffee & Schleuder, 1986). Several studies of the effectiveness of both exposure to public affairs information and political advertising have recently been forth coming with regularity (Zhao & Bleske, 1995; Zhao & Chaffee, 1995; Chaffee, Zhao & Leshner, 1994; Drew & Weaver, 1991; Weaver & Drew, 1993). However, the literature dealing with the effects of news versus political advertising is still clouded making it necessary to continue researching this area.

The Model

Figure 1 presents the recursive model with latent variables which is tested in this study. The model proposes that involvement will lead to different media formats exposure, which in turn will lead to attention to media content, which influence knowledge. Knowledge will in turn lead to voting intention.

Several major presuppositions guide the specification of the model. Besides the fact that the '92 campaign was issue intense because of Clinton's focus on the economy and national issues, and Perot's sporadic agitation, several media organizations focused on the issues by trying some innovative approaches to campaign coverage. The introduction of nontraditional campaign formats such as infomercials, appearances on MTV and Late Night shows made the campaign season and its issues extremely obtrusive. Equally important and enhancing to the obtrusiveness of the campaign issues is reporters and political pundits' use of the candidates' political ads as part of their campaign coverage particularly misleading and erroneous ones. The model also presupposes that individuals are active processors of information on campaign issues due to the perceived volatility of the national economy and the sheer enormity of other domestic issues, such as education, health care, and abortion, all or some of which might affect voters or their families.

According to the model, involvement leads to exposure to media reports and political advertising. On the one hand, exposure to media reports of the campaign issues will influence attention to those issues and knowledge of candidates' stands on them as much as impacts exposure to political advertising. The latter influence is partly due to the media's analysis of the candidates' political ads and because of the prevalence of the ads themselves particularly toward the end of the campaign season. Exposure to political ads, on the other hand, while positively influences attention to ads content, it negatively influences knowledge of candidates' stands on the issues of the campaign in general. The latter prediction is based on the fact that candidates usually favorably and selectively exaggerate their positions on certain issues they deem important to the voters. Conversely, they portray their opponents in a negative light on these issues. Equally prevalent is the use of misleading, superficial and negative political advertising campaigns. Therefore, these factors could actually reduce the individual's likelihood to learn the true positions of the candidates on these issues.

Similarly, attention to the media's coverage of campaign issues will influence both attention to political ads content and knowledge of candidates' stands on the issues. Attention to ads content, however, negatively influences knowledge of candidates' issue stands. The preceding arguments concerning the negative influence of political ads exposure equally apply to attention to ads content. Finally knowledge of issue stands influences voting intention.

Ten paths in the model are neither theoretically substantive nor empirically tenable.

Involvement influences the exposure variables directly and attention variables only through exposure. Logically, individuals who perceive future consequences of the outcome of the election on themselves or their families are more likely to follow the campaign over the media. Attention, then, must occur after initial exposure as well as during exposure. Furthermore, unless we include other sources of information in the model, involvement can influence knowledge of issue stands only through media use variables. Although highly involved individuals are more likely to vote than others, we do not consider it theoretically plausible in this model without the mediating influence of the media use variables and/or at least some knowledge of the candidates' issue stands.

Exposure variables may influence voting intention only through attention variables and knowledge of issue stands. Again, only involved individuals who expose themselves to the campaign coverage/advertising campaign are likely to pay attention to the media's reportage of campaign activities, consequently they are more likely to gain knowledge of the candidates' issue stands. Therefore, exposure variables should not directly lead to voting intention. Similarly, attention variables influence voting intention only through knowledge of issue stands, i.e. individuals who do not care enough to have a knowledge base of the campaign issues are least likely to vote.

Figure 1 About Here

Method

The Sample

The sample of the study was comprised of adults residents of Jackson County in Illinois who voluntarily participated in a telephone survey. The interviews were conducted by trained undergraduate and graduate student volunteers at a large university in Illinois. The telephone numbers were selected from local exchanges using random digit dialing techniques. The interviews were conducted from October 19 to October 30 1992. There were 452 usable questionnaires.

Among the respondents, 340 (75.2%) were from a university community, 86 (19.1%) were from two small rural towns, 23 (5.1%) were from adjacent rural areas and 3 (0.7%) were from undeclared areas. Two hundred and twenty three (49.3%) of those in the sample were females while males accounted for 50.4% and gender information is missing on 0.2%. The respondents' ages ranged between 18 and 86 years. About 25% of the sample had a high school diploma or less, 53.1% had at least some college education and 21.2% some graduate education.

Frequencies of the five questions for each candidate indicated that respondents seemed to be fairly knowledgeable about candidates' stands on the issues with Clinton leading and Perot trailing probably because of his drop from and reentry to the campaign. A composite analysis for each candidate indicated that about 80% of the respondents recognized Clinton's positions on the issues, while 67% and 53% of the sample recognized Bush's and Perot's positions on the issues respectively. The campaign issues that received the most correct responses were the candidates' positions on abortion (71%) which was followed by national health care and national defense (63%) for each issue. Only about half the respondents knew candidates' stands on taxes and about 44% of the sample knew candidates' positions on education.

Measurement of Latent Constructs

The constructs of media reports and political ads exposure scales were measured on a Likert type scale: A great deal (5), Quite a bit (4), Some (3), A little (2) and Nothing at all (1). Similarly involvement, media reports and political ads attention were measured on a Likert type scale: A great deal (5), Quite a bit (4), Some (3), A little (2) and Not at all (1).

Involvement: The measured indicators for issue involvement for the study were borrowed from Grunig and Childers (1988). Respondents were asked: (a) To what extent do you believe the overall issues of the election will affect you personally either now or in the near future? and (b) someone close to you either now or in the near future?

Media reports and political ads exposure: The items were borrowed from Atwood (1991). For media reports exposure the items were: (a) How much have you read or heard about the presidential election campaigns within the last month or so in newspapers? (b) from television? (c) from radio? and (d) in magazines? For political ads exposure the items were: (a) How much have you read or heard about the presidential election campaigns within the last month or so in television political commercials? (b) radio political commercials? (c) newspaper political ads? and (d) magazines political ads?

Media reports and political ads attention: The measured indicators for the construct of attention were borrowed from McLeod and McDonald (1985). Respondents were asked: Suppose you come across a story or something about the election tomorrow, how much attention would you pay to the story about the election? (a) Newspaper stories? (b) Magazine stories? and (c) Television news stories? For the political ads attention construct the items were: (a) Print ads about the candidates? (b) TV political commercials? Radio political commercials?

Knowledge of issue stands: The measured indicators for knowledge of issue stands were developed for this study and they included abortion, taxes, national health care, education and national defense. A correct response is given one point and a false response is given a zero. All correct responses for each candidate will be combined into a single index by summing their values.

Voting intention: Respondents were asked if they were registered to vote. Registered voters were recorded as (1) while non registered were given (0). Registered voters were asked to estimate the likelihood of their voting on a scale of 0 to 10. They were also asked to estimate their chances to vote if the weather was really bad and if they were really busy on election day.

Analysis

Given multiple measures for each theoretical construct, the model was investigated via structural equation methods. LISREL 7 was used to fit the proposed model to the data. The model in Figure 2 was estimated by analyzing the covariance matrix of all the measured variables simultaneously and producing maximum-likelihood estimates of the parameters in structural equation models (Joreskog & Sorbom, 1989).

In Figure 2, ξ_1 refers to involvement which is the latent exogenous construct indicated by measures, X_1 and X_2. Latent endogenous constructs of media use are media reports exposure which are indicated by measures Y_1 through Y_4; political ads exposure are indicated by measures Y_5 through Y_8; media reports attention are indicated by measures Y_9 through Y_{11}; and political ads attention are indicated by measures Y_{12} through Y_{14}. There are two dependent constructs, knowledge of issue stands indicated by measures Y_{15} through Y_{17}, and voting intention indicated by measures Y_{18} through Y_{20}.

Causal paths between involvement and media reports exposure and political ads exposure are being assessed by γ_{11} and γ_{21}, while β's assess the causal paths among the endogenous constructs. The λ_x and λ_y parameters refer to the factor loadings of each measured indicator on its latent construct, while δ and ε refer to the errors in measurement for each indicator of the exogenous and endogenous constructs, respectively. The ζ parameters refer to the residual variances in each structural equation. To determine a unit of measurement for the measurement equations for each latent construct, the factor loading of the first of its indicators was fixed at a value of 1.

Figure 2 About Here

Results

Overall Fit of the Model

Assessing the adequacy of the tested model is accomplished by examining the results of measures of overall fit, detailed assessment of the fit and examination of the solution. The empirical data fit the model relatively well. Despite the fact that the chi-square is highly significant, the model represents a relatively adequate fit to the data. The chi-square test assesses the fit between observed covariance (S) and implied covariance (Σ) and hence provides an omnibus test of the model and the estimates of its free coefficients (Hayduk, 1987). As Chaffee and Roser (1986) point out, however, with large sample sizes, obtaining nonsignificant chi-squares are almost impossible. Large sample sizes tend to produce significant χ^2, like other tests of significance, not because the fit between S and Σ is bad, but because even smaller differences are considered more than mere sampling fluctuations (Hayduk, 1987). Generally, the ratio of chi-square to degrees of freedom has been used to determine the adequacy of the fit. Some researchers suggest that a ratio of chi-square to degrees of freedom of 5 or less is an indication of an acceptable fit (Hayduk, 1987; Chaffee & Roser, 1986; Grunig & Childers, 1988). For the tested model the ratio of chi-square to degrees of freedom is 5.428.

A second measure of overall fit is the goodness-of-fit index (GFI=.809) which indicates the relative amount of variance and covariance explained by the model. The adjusted goodness-of-fit-index (AGFI=.755) is the former index adjusted for the degrees of freedom of the model.

The third measure of overall fit is the root mean square residual which is the average of the fitted residuals. The elements of the fitted residuals are the differences between sample covariance and implied covariance ($S - \Sigma$) (Joreskog & Sorbom, 1989). The general rule of thumb is that a root mean square residual of less than .05 represents a very good fit. For this model, the root mean square is 0.151.

The fourth category of overall fit measure is the total coefficient of determination for the measurement equations and structural equations. The total coefficient of determination for the proposed structural equations (TCD=.519) assesses how well they account for the latent constructs. TCD_x (.863) indicates how well the measured X variables serve as joint indicators of involvement. TCDy (.999) assesses how well the observed Y variables serve as joint indicators of all the latent endogenous constructs combined. The indices of overall fit clearly indicate that the measurement components of the model are robust, while the amount of variance accounted for by the structural component is adequate (TCD=.519).

Table 2 About Here

Model Estimates

An examination of the solution is largely determined by assessing the estimates of the tested model which are presented as the direct effects, indirect effects and total effects of the estimated path coefficients. The path coefficients, as direct effects for all the paths in the tested model, are presented in Figure 3. It was hypothesized that all estimated coefficients are significantly different from zero at the 0.05 level.

The completely standardized maximum likelihood estimates for the model, excluding direct effects among the latent variables, are presented in Table 3. Most of the factor loadings for the observed indicators on their hypothetical constructs were very substantial and all of them were statistically significant. However, each indicator also had a statistically significant proportion of measurement error. The largest factor loadings were associated with the constructs of voting intention and involvement. These were followed by attention to political advertising indicating that voters actually considered the advertising campaign of the candidates seriously. The lowest factor loading, not surprisingly, was that of knowledge of Perot's stands on the campaign issues. The factor loading of knowledge of Perot's issue stands was extremely low perhaps due to two reasons. The first reason was his drop and reentry in the presidential race, while the second was his refusal to use sound bites, which voters tend to find easy to remember, to define his stands on the issues.

Table 3 About Here

We hypothesized eleven causal links in the model of which ten causal paths were statistically significant. Our hypothesis that involvement leads to political ads exposure was not statistically significant (.03). As indicated in Figure 3, the structural paths confirm all the other remaining hypotheses in that involvement influences media reports exposure (.33). Media reports exposure has a large influence on knowledge of issue stands (.85), a great impact on political ads exposure (.68) and media reports attention (.41). Political ads exposure positively influences political ads attention as expected (.45) and negatively impacts knowledge of issue stands (-.40). Media reports attention positively impacts both political ads attention (.44) and knowledge of issue stands (.13), while political ads attention negatively influences knowledge of issue stands (-.20). Knowledge of issue stands leads to voting intention (.20). Unexpected, involvement also has a direct effect on voting intention (.22).

Figure 3 About Here

The influence of media use on knowledge of issue stands and the influence of knowledge on voting intention are large according to the model specification as indicated by the indirect and total effects of the maximum likelihood solution. For instance, involvement has an indirect effect of .200 on political ads exposure, while exerting total effects of .238 and .229 on media reports exposure and political ads exposure respectively. The total effect of involvement on voting intention is a large .817.

The endogenous constructs show a similar pattern of indirect and total effects. For instance, media reports exposure has a large indirect effect on political ads attention (.709) and a substantial indirect effects on voting intention (.487). Some of the total effects of the endogenous constructs on each other are outstanding. For instance, media reports exposure has large total effects on political ads exposure (.840), political ads attention (.709), and media reports attention (.681) as well as moderate total effects on knowledge of issue stands (.557) and voting intention (.487). Political ads exposure also exerts moderate positive total effects on political ads attention, and negative total effects on knowledge of issue stands (-.410) and voting intention (-.359). Lastly, the total effects of knowledge of issue stands on voting intention is also large (.874).

Table 4, Table 5, Table 6 About Here

Conclusion

Political communication studies have recently focused on exposure and attention, as predictors of knowledge of candidates' issue stands. While attention was often declared a better predictor than exposure by some researchers, other scholars found exposure to television news to be equally effective (McLeod & McDonald, 1985; Chaffee Schleuder, 1986; Zhao and Bleske, 1995). In this study newspaper use measures were consistently superior to television use ones.

The main objective of this study is to determine the influence of different media formats on political knowledge and voting intention. The results indicate that media formats do matter and that measures of media reports exposure and attention are more effective than measures of political advertising exposure and attention. These findings could imply, as Zhao and Bleske (1995) suggested, that not only measures of variables matter but also that methodological differences could very well explain some of the contradictions in political communication literature. Contrary to previous investigations, it is found that combined media reports consistently outperformed political advertising which could be another indication of the robustness of message exposure measures. Not only did media reports had larger positive effects on knowledge and voting intention, but also the influence of political advertising was negative on both knowledge and voting intention. Hence the claim that political advertising could possibly cause disenchantment among voters can be inferred by the results of this study.

Few media use studies provide tests of the multiple elements of effect models as integrated theoretical systems. To achieve a true test of integrative models, researchers should "test large multivariate models which incorporate indicators of many of the variable groupings in the general model less and specify the complex relations among these variables in a priori fashion" (Palmgreen, et al., 1985, p. 36). Procedures such as LISREL and partial least squares are capable of handling large numbers of manifest and latent variables simultaneously and carrying out formal tests of alternative models. Their measurement models provide a powerful means of improving the measurement of effect models and aid in the development of future robust analyses. The simultaneous analysis of all the equations takes into consideration all possible causal links in a panoramic fashion, as opposed to individual examination of separate equations, and hence provide better portrayals of the true model that fit the empirical data. Therefore, the use of these analytic techniques will necessarily heighten our understanding of the subtle but theoretically important media effects such as the ones found in this study.

A contextual interpretation, however, could provide a different characterization of the results. Several factors made the 1992 presidential campaign unique. The '92 campaign was issue intense perhaps due to the candidacy of an independent competitive presidential hopeful. News organizations have, relative to coverage of previous campaigns, focused on the issues by trying innovative approaches to campaign coverage. The candidates, particularly Clinton and Perot, have introduced nontraditional campaign styles. Most significantly, many reporters and news analysts used candidates' political advertising as part of their campaign coverage by reporting misleading and erroneous claims made by those ads. Therefore, a combination of theses factors could have provided a basis for media reports superiority over political advertising.

On a theoretical note, however, researchers have used attention and message exposure as alternate measures of media use behavior. For instance, Drew and Weaver (1991) joined other scholars (McLeod & McDonald, 1985; Chaffee Schleuder, 1986; Zhao and Bleske, 1995) to affirm the importance of attention as a measure of media use. But according to our findings and Zhao and Bleske's, the measures are probably tapping two different concepts. In Zhao and Bleske's (1995) words, "attention involves mental efforts and cognitive processing" (p. 79) making it analogous to a measure of information processing.

The findings of this study also have significant implications to media critics and political strategists. If the superiority of media reports over political advertising and the negative effects of political ads can be consistently and systematically replicated by modifying measures of exposure and analytic tools, it could be safely inferred that news organizations innovative approaches of the coverage of the 1992 presidential campaign as a response to the criticism of the 1988 campaign as being superficial and negative might very well induce political strategists to focus on the issues that influence voters. Fortunately, during the 1994 off-year campaign season, news organizations in major cities, including Dallas, San Francisco, Wichita, Seattle, and Boston, tried to replicate some of the successes of the 1992 campaign coverage by using similar news and information formats (Miller, 1994).

Finally, this study is not immune from the limitations of other cross-sectional investigations. Therefore, the replication of these findings through panel studies and with national data will certainly enhance our confidence in the results and probably in citizens' participation in political change.

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Table 1
Descriptive Statistics for Variables in the Proposed and Modified Models

Variable Name	Mean	S. D.*
Exogenous Variables:		
Personal Involvement	4.00	1.04
Relative's Involvement	4.12	1.00
Endogenous Variables:		
Newspapers Exposure	3.68	1.21
Television Exposure	4.39	0.95
Radio Exposure	2.49	1.39
Magazine Exposure	2.22	1.31
TV Political Commercials	3.78	1.35
Radio Political Commercials	2.21	1.32
NP Political Ads	2.55	1.42
Magazine Political Ads	1.70	1.05
Attention to NP Reports	3.53	1.22
Attention to TV Reports	3.77	1.16
Attention to Magazine Reports	2.93	1.35
Attention to Political Print Ads	2.52	1.27
Attention to Pol. TV Commercials	2.71	1.39
Attention to Pol. Radio Commercials	2.20	1.22
Knowledge Bush's Issue Stands	2.87	1.19
Knowledge Clinton's Issue Stands	3.59	1.03
Knowledge Perot's Issue Stands	2.03	1.18
Voting Intention	4.46	1.29
Voting Intention in Bad Weather	4.42	1.32
Voting Intention when Busy	4.40	1.33

*Standard Deviation

Table 2
Overall Goodness-of-Fit Estimates of the Model

Goodness-of-Fit Indices	Values
χ^2	1069.43
Degrees of Freedom (*df*)	197.0
Probability (*p*)	0.0001
χ^2 / df	5.428
Goodness of Fit Index (GFI)	0.809
Adjusted Goodness of Fit Index (AGFI)	0.755
Root Mean Square Residual	0.151
Total Coefficient of Determination Structural Equations (TCD)	0.519
Total Coefficient of Determination for X (TCDx)	0.863
Total Coefficient of Determination for Y (TCDy)	0.999

Table 3 Continued:

Parameters		Estimates
Measurement Errors in Indicators		
δ_1	Personal Involvement	.274
δ_2	Relative's Involvement	.216
ε_1	Newspaper Exposure	.709
ε_2	Television Exposure	.803
ε_3	Radio Exposure	.831
ε_4	Magazine Exposure	.828
ε_5	TV Political Commercial Exposure	.645
ε_6	Radio Political Commercial Exposure	.708
ε_7	PRINT Political Ads Exposure	.464
ε_8	Magazine Political Ads Exposure	.601
ε_9	Attention to PRINT Reports	.202
ε_{10}	Attention to TV Reports	.670
ε_{11}	Attention to Magazine Reports	.549
ε_{12}	Attention to Political PRINT Ads	.436
ε_{13}	Attention to Political TV Political Commercials	.485
ε_{14}	Attention to Political Magazine Ads	.449
ε_{15}	Knowledge of Bush's Issue Stands	.681
ε_{16}	Knowledge of Clinton's Issue Stands	.613
ε_{17}	Knowledge of Perot's Issue Stands	.916
ε_{18}	Voting Intention	.129
ε_{19}	Voting Intention in Bad Weather	.003
ε_{20}	Voting Intention When Busy	.018

Table 3
Standardized Maximum Likelihood Estimates for the Model

Parameters			Estimates
Factor Loadings			
ξ_1	X_1	Personal Involvement	(.852)
	X_2	Relative's Involvement	.886***
η_1	Y_1	Newspaper Exposure	(.539)
	Y_2	TV Exposure	.444**
	Y_3	Radio Exposure	.411**
	Y_4	Magazine Exposure	.414**
η_2	Y_5	TV Political Commercial Exposure	(.596)
	Y_6	Radio Political Commercial Exposure	.540**
	Y_7	NP Political Ads Exposure	.732***
	Y_8	Mag Political Ads Exposure	.631**
η_3	Y_9	Attention to NP Reports	(.893)
	Y_{10}	Attention to TV Reports	.574**
	Y_{11}	Attention to Magazine Reports	.672**
η_4	Y_{12}	Attention to Political Print Ads	(.751)
	Y_{13}	Attention to Political TV Commercials	.717***
	Y_{14}	Attention to Political Radio Commercials	.743***
η_5	Y_{15}	Knowledge of Bush's Issue Stands	(.565)
	Y_{16}	Knowledge of Clinton's Issue Stands	.622**
	Y_{17}	Knowledge of Perot's Issue Stands	.290*
η_6	Y_{18}	Voting Intention	(.933)
	Y_{19}	Voting Intention in Bad Weather	.998***
	Y_{20}	Voting Intention when Busy	.991***
Errors in the Structural Equations			
ζ_1		Media Reports Exposure	.894
ζ_2		Political Ads Exposure	.526
ζ_3		Media Reports Attention	.834
ζ_4		Political Ads Attention	.500
ζ_5		Knowledge of Issue Stands	.567
ζ_6		Voting Intention	.898

Note: Factor loadings in parentheses were specified as fixed.
*Significant at $p < .05$
** Significant at $< .01$
***Significant at $< p$ .001

Table 3 Continued Next Page.

Table 4
Indirect and Total Effects of Involvement on Indogenous Variables

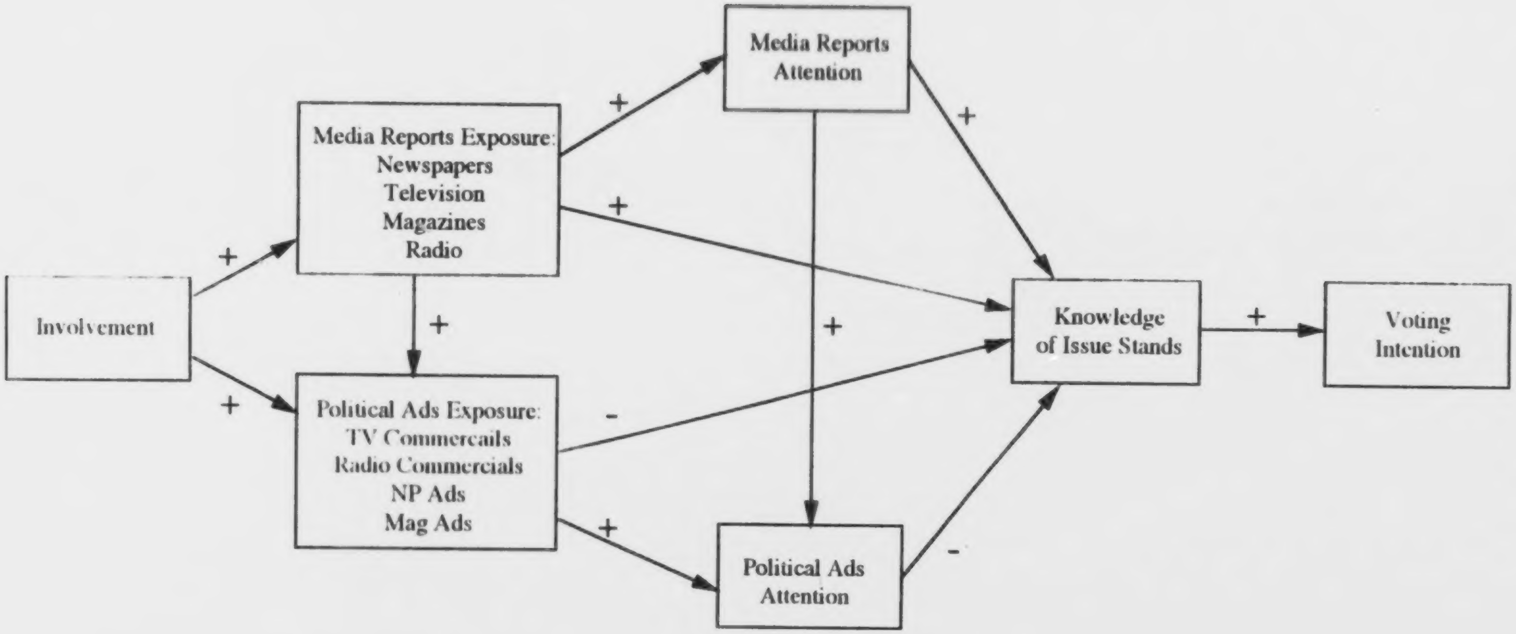
	Indirect Effects	Total Effects
Reports Exposure	0.000	0.238
Ads Exposure	0.200	0.229
Reports Attention	0.162	0.162
Ads Attention	0.184	0.184
Knowledge of Issues	0.121	0.121
Voting Intention	0.106	0.817

Table 5
Indirect Effects of Endogenous Variables on Each Others

	Reports Exposure	Ads Exposure	Reports Attention	Ads Attention	Issue Knowledge	Voting Intention
Reports Exp.						
Ads Exposure						
Reports Attention						
Ads Attention	0.709					
Issue Knowledge	-0.326	-0.075	-0.054			
Voting Intention	0.487	-0.359	0.024	-0.123		

Table 6
Total Effects of Endogenous Variables on Each Others

	Reports Exposure	Ads Exposure	Reports Attention	Ads Attention	Issue Knowledge	Voting Intention
Reports Exp.	0.000					
Ads Exposure	0.840					
Reports Attention	0.681					
Ads Attention	0.709	0.531	0.385			
Issue Knowledge	0.557	-0.410	0.027	-0.140		
Voting Intention	0.487	-0.359	0.024	-0.123	0.874	


Media Reports Attention
Media Reports Exposure:
Newspapers
Television
Magazines
Radio
Involvement
Knowledge of Issue Stands
Voting Intention
Political Ads Exposure:
TV Commercails
Radio Commercials
NP Ads
Mag Ads
Political Ads Attention
+
+
+
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+
+
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+
-
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Figure 1: A Comparative Model of Media Reports and Political Ads on Knowledge and Voting Intention

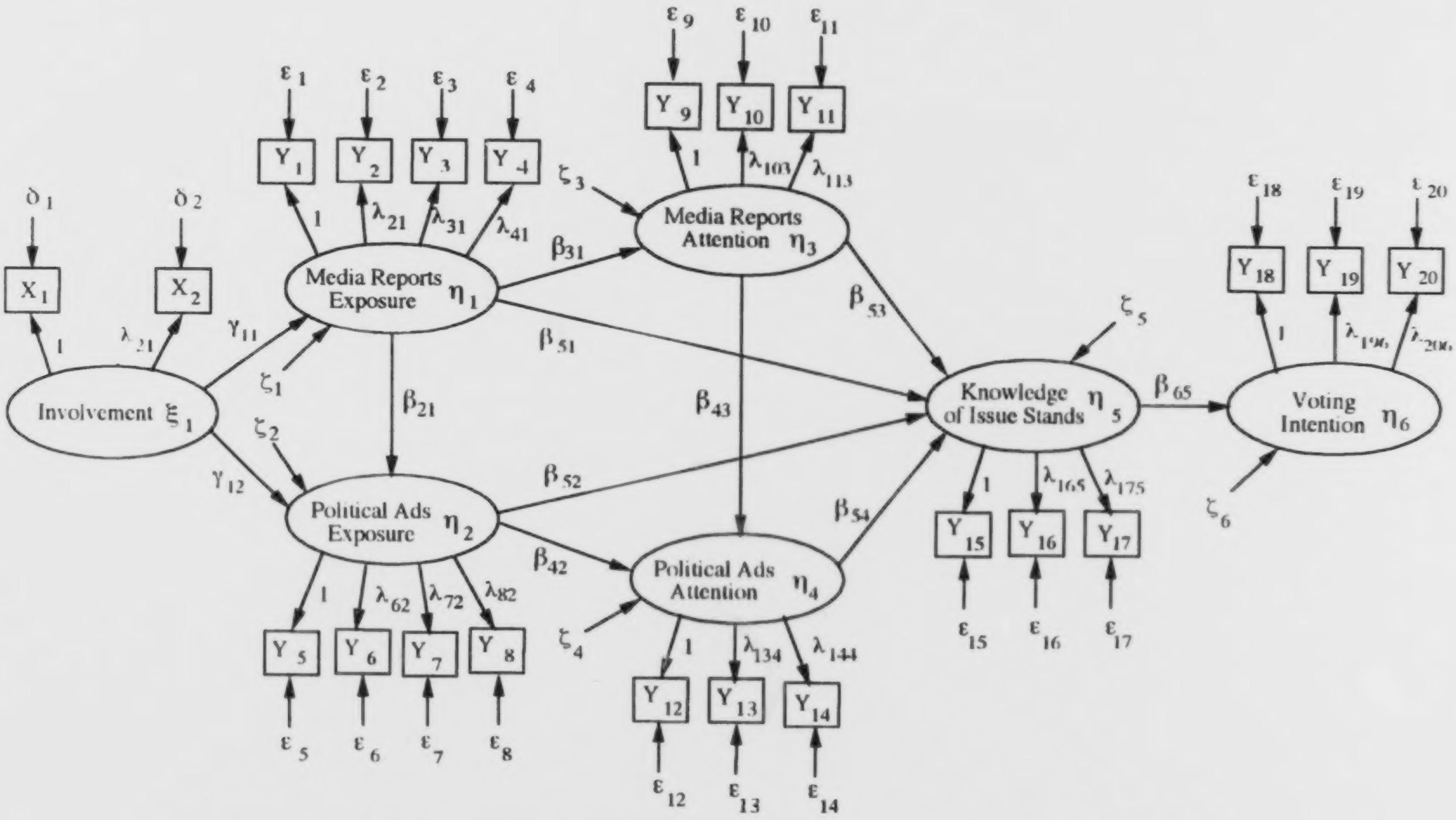
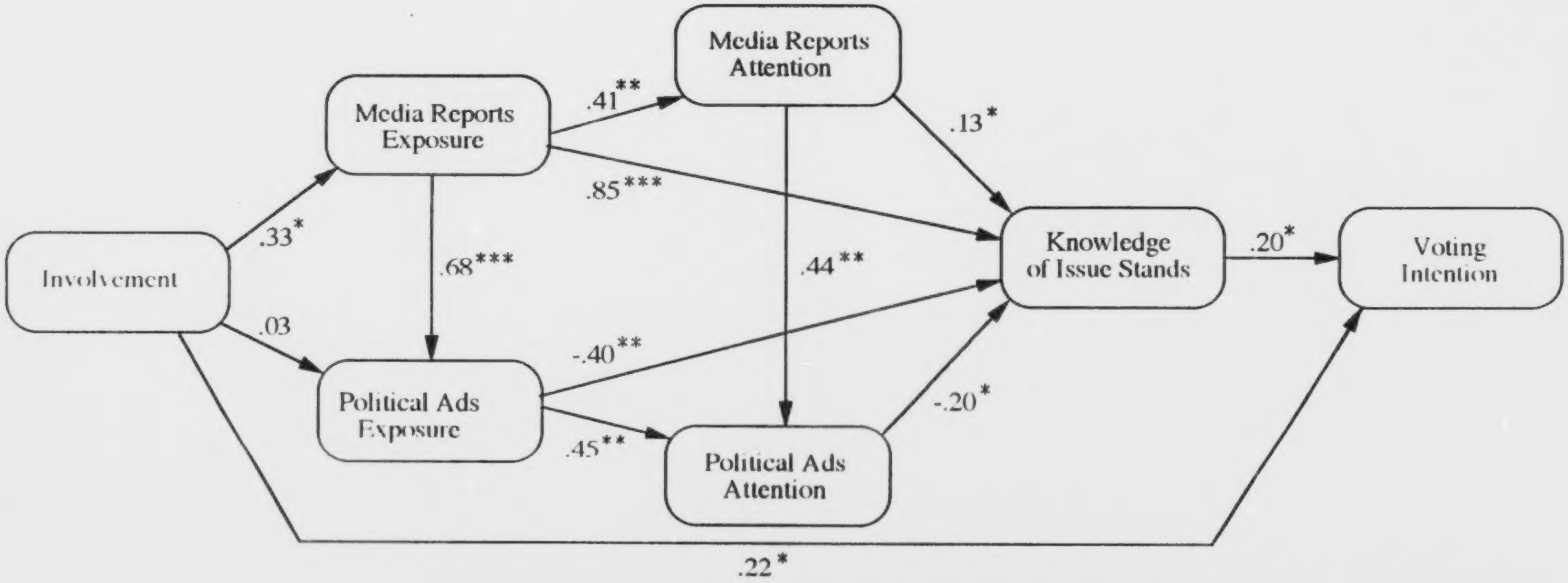

Involvement ξ_1
Media Reports Exposure η_1
Political Ads Exposure η_2
Media Reports Attention η_3
Political Ads Attention η_4
Knowledge of Issue Stands η_5
Voting Intention η_6
X_1 X_2 δ_1 δ_2 1 λ_{21}
γ_{11} γ_{12} ζ_1 ζ_2 ζ_3 ζ_4 ζ_5 ζ_6
Y_1 Y_2 Y_3 Y_4 ε_1 ε_2 ε_3 ε_4 1 λ_{21} λ_{31} λ_{41}
Y_5 Y_6 Y_7 Y_8 ε_5 ε_6 ε_7 ε_8 1 λ_{62} λ_{72} λ_{82}
Y_9 Y_{10} Y_{11} ε_9 ε_{10} ε_{11} 1 λ_{103} λ_{113}
Y_{12} Y_{13} Y_{14} ε_{12} ε_{13} ε_{14} 1 λ_{134} λ_{144}
Y_{15} Y_{16} Y_{17} ε_{15} ε_{16} ε_{17} 1 λ_{165} λ_{175}
Y_{18} Y_{19} Y_{20} ε_{18} ε_{19} ε_{20} 1 λ_{196} λ_{206}
β_{21} β_{31} β_{42} β_{43} β_{51} β_{52} β_{53} β_{54} β_{65}

Figure 2: Results of the Comparative Model of Media Reports and Political Ads on Knowledge and Voting Intention



Media Reports Attention
Media Reports Exposure
.41**
.13*
.85***
Involvement
.33*
.68***
.44**
Knowledge of Issue Stands
.20*
Voting Intention
.03
-.40**
Political Ads Exposure
-.20*
.45**
Political Ads Attention
.22*

Figure 3: Results of the Comparative Model of Media Reports and Political Ads on Knowledge and Voting Intention

*Significant at p < .05
** Significant at < .01
***Significant at < p .001

Taking on The Tube:
An Examination of Parents' Media Behavior, Attitudes and Discussion Regarding Television

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Running Head:
Mediation Styles

Taking on The Tube:
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ABSTRACT

A random telephone survey (N=255) of Washington state parents of children between the ages of 2 and 17 assesses parents' patterns of interaction with their children regarding television, along with parental viewing habits and perceptions of television content. Mediation is shown to be conceptually distinct from coviewing and to have different motivations and implications when it is positive or negative in valence. A typology of parental mediation patterns emerges from the data, including nonmediators (parents who talk about television with their children infrequently), optimists (those whose discussion primarily reinforces television content), cynics (those whose discussion primarily counters television content) and selectives (those who use both positive and negative discussion strategies). It is concluded that positive mediation may occur primarily by happenstance rather than by intent, with negative mediation associating more with critical viewing and protective motivations.

Taking on The Tube:
An Examination of Parents' Media Behavior, Attitudes and Discussion Regarding Television

From Plato to the 1996 United States Congress, society has taken it upon itself to control and censor the information available to children. Whether via stories, regulations or V-chips, adults have always tried to protect children from messages that might damage or threaten the impressionable (Meyrowitz, 1985; Tatar, 1991). Nevertheless, the ubiquitous nature of television has made it more difficult to limit children's access to ideas with which their caregivers might disagree (Meyrowitz, 1985; Austin, 1993). Because the flow of information is less easily controlled, other routes to parental influence take on increased importance. Scholars' understanding of such influences on children's interpretations and uses of media content, however, remains limited. The purpose of this study, as a result, is to examine parent-child interaction regarding television from the perspective of the parent in an effort to better understand conceptual differences among their communication activities as well as the motivations related to those activities.

Both the general public and parents frequently express concern about television content. Mittal (1994), for example, reported that consumers evaluated much advertising as misleading, boring, irritating, offensive, silly and trivial. The public also blamed advertising for undesirable effects such as spreading materialism, promoting sex and taking undue advantage of children. According to a 1989 Gallup survey of parents, parents watching television with their children experience some discomfort about the content of television. In particular, parents of children under 18 objected to sex-related issues, violence and bad language. Ridley-Johnson, Surdy and O'Laughlin (1991) also reported parental fear over the effects of television violence on their middle-school children, worrying that television contributed to the acceptance of violence and made children feel upset and threatened.

Considering the apparent import of the issue to society as reflected in political speechmaking and congressional action, comparatively little attention has been paid to parent-child interaction regarding the mass media. According to findings such as those from Austin, Roberts and Nass (1990), parents can successfully reinforce or refute television content. According to one recent review of the literature on family communication and the media (Austin, 1993), concerned parents can exert direct or indirect control over potential media influences via four primary routes. These include 1) rulemaking (censorship); 2) modeling behaviors that confirm or disconfirm media messages (coviewing and everyday behavior); 3) general communication norms that influence children's information seeking patterns; and 4) active discussion of media content, often called "mediation."

According to the existing literature, however, parents do little to control or influence the messages their children receive from the mass media. Parents tend to make few rules and discuss television content infrequently (e.g., Bower, 1973; Comstock, 1975; Corder-Bolz, 1980; Lyle & Hoffman, 1972; Austin, Roberts & Nass, 1990). Parents also frequently set a poor example for children to imitate or cultivate communication patterns within the family that do not foster the development of effective decisionmaking skills (e.g., Flay & Sobel, 1983; Kandel & Logan, 1984; Alexander & Fry, 1990; Austin & Nach-Ferguson, 1995).

It would be premature, however, to blame poor parenting for unwelcome media effects on children. Many of the studies that have examined parent-child interaction and the media are difficult to compare due to inconsistent definitions and measurement techniques across studies, leading to apparently contradictory and potentially misleading findings. As Austin (1992) recently argued, for example, scholars frequently combine conceptually different activities such as *coviewing,* the shared experience of media exposure by parent and child; *rulemaking*, the encouragement or prohibition of certain media experiences by the parent for the child; and *mediation*, the active discussion of television content.

As a primary source of information for children, parents can help children interpret television more critically through discussion (Austin, 1993; Corder-Bolz, 1980; Salomon, 1981; Desmond, et al., 1985). According to Austin (1993), relying on Messaris's (1982) conceptualization of parent's television-related discussion, parental mediation involves three tasks: *categorization*, showing whether and how television reflects the real world; *validation*, involving endorsement or condemnation of portrayals; and *supplementation*, showing how information from television can be useful by supplying additional information or by engaging in related activities. All three of these tasks can refute or reinforce television content, by suggesting that television messages are/are not realistic; are right/wrong and are/are not applicable to real-life situations. Desmond et al. (1985) also have noted that parental communication about television tends to include both nonvalenced and valenced (positive and negative) elements.

Whatever their potential for counter-influence, it appears that parents frequently watch with their children without actually discussing the content or by tacitly or explicitly endorsing it rather than refuting it. Indeed, they may watch together because they *like* the content, not because they plan to provide commentary. Scholars have suggested that coviewing may not be sufficient to mediate children's perceptions of television (Austin, 1993; Bower, 1973; Desmond, et al., 1985). In addition, it appears that scholars need to distinguish between positive and negative reinforcement of content, which can have different motivations and different results.

For example, endorsement of the content ("positive mediation") may have different effects than countering of the content ("negative mediation"). As Austin (1993) noted, parental alarm may produce a defensive reaction, with endorsement producing a more approving response. A child may receive recommendations more happily than coercion. A defensive strategy may meet with resistance, then, giving negative mediation both the potential to backfire as well as to cultivate skepticism and parentally endorsed mores. Yet, while positive mediation may draw a child's attention to good things on television, it also may reinforce easy acceptance of other messages as well. Both positive and negative strategies, then have the potential both for success and for failure.

By examining parent-child interaction regarding television from the perspective of the parent, this study represents a step toward examining the implications of the potentially disparate effects of positive and negative mediation, as well as their relationships to other aspects of parent-child television-related interaction. The current literature suggests that parents' primary response to challenging or offensive content is to turn the channel rather than talk about it (Gallup, 1989). Nevertheless, some research suggests that parents are more likely to discuss television when it conflicts with their value system (Atkin, Heeter & Baldwin, 1989). The first finding could suggest that interactions focused on television would tend toward the positive, whereas the second finding could suggest that most of the mediation taking place would be negative in valence. More likely, both conclusions represent oversimplifications of parental motivations and behaviors.

Scholars have suggested that parents' perceptions of television's influence will affect their patterns of parental guidance (e.g., van der Voort, Nikken & van Lil, 1992; Bybee, Robinson & Turow, 1982). For example, Bybee et al. found that parents who believed television had a negative impact on children tended to make more rules and provide more explanation. Parents who held positive views of television also tended to engage in discussion. In a replication of Bybee and Turow's study, van der Voort et al. confirmed much of Bybee and Turow's findings with a broader sample of parents. They also found parental concern about television positively related to "unfocused guidance," essentially coviewing.

Thus, the literature suggests conceptual differences between negative and positive communication strategies regarding television. Austin's finding that more frequent mediation (largely operationalized as negative) predicted greater skepticism among children, could suggest a specific role for negative reinforcement. Meanwhile, Austin and Nach-Ferguson's finding that parental mediation increased children's brand-specific knowledge about alcohol, which in turn made children 7-12 more likely to report having tried an alcoholic drink, led them to conclude that they were tapping positive (perhaps unintentionally so) reinforcement. Since Austin's 1993 study also found that mediation increased political involvement and public affairs media use along with skepticism, suggesting the endorsement of television as a useful tool, this suggests that mediation may well include both positive and negative reinforcement components. Parents could be expected to use these mediation styles in conjunction with their issues of concern, rather than using one style exclusively. This suggests, as a result, that a) positive and negative mediation are conceptually different and that b) parents may use one, both or neither strategy in their interactions with their children. It is hypothesized, then, that:

H1: In a factor analysis, positive and negative mediation behaviors will separate into two separate factors.

H2: Nonvalenced mediation will correlate positively with both negative and positive mediation.

H3: A typology of frequent/infrequent positive and negative mediation will show significant differences on a variety of constructs tapping parental media use and opinions.

We can make some other predictions as well to tap the conceptual differences underlying parental beliefs and behaviors regarding the television medium. For example, Dorr et al. (1989) found that the use of television as a socialization tool by parents, along with parental viewing encouragement, predicted increased coviewing. Negative comments, meanwhile, did not predict coviewing. Although the literature is not unanimous on this point (e.g., van der Voort, et a., 1992) coviewing appears to occur because of positive views toward television content rather than because of negative views. For example, Dorr, Kovaric and Doubleday (1989) have found coviewing more likely when parents value television content and think children should learn from television. This leads to the expectation that:

H4: Positive attitudes toward television content and genres will positively predict coviewing.

It appears that negative views of television have somewhat different effects than positive views have. Bybee et al. (1982), for example, found that while negative views predicted the use of both content-related discussion and rulemaking, positive views predicted only discussion. Van der Voort, et al. (1992) similarly found that negative views predicted discussion and also "unfocused guidance," or coviewing combined with nonvalenced discussion. Van der Voort et al. argued that parents' strong concerns about television effects--whether good or bad--motivated parents to coview with children and discuss the content to either protect them from negative effects or strengthen positive effects. Atkin, et al. (1991), however, concluded from their results parents are more likely to discuss television content if it presents values with which they disagree. This would dovetail with Atkin et al.'s (1989) earlier finding that discussion increases when parental values seem threatened. It appears, then, that coviewing is motivated by positive views of television--perhaps much by a desire to share an enjoyable experience, whereas it is less certain that coviewing also is motivated by negative views of television. If coviewing is motivated largely by positive views, then coviewing also should be related to positive mediation and viewing frequency, reflecting reinforcement of an enjoyable experience. Greater viewing time, say some scholars, tends to imply less rulemaking and less critical viewing (Atkin, et al., 1991; Desmond, et al., 1985; Medrich, 1979). The research on Family Communication Patterns (e.g., Chaffee, McLeod & Atkin, 1971; Chaffee, McLeod & Wackman, 1973) also has found that those who watch television the most tend to be the least skeptical, suggesting that positive reinforcement would be more likely than negative reinforcement among the frequent viewers.

H5: Coviewing will positively predict positive mediation.

H6: More frequent television exposure will positively predict positive mediation.

The result, according to Austin and Nach-Ferguson (1995), is that parents may unintentionally reinforce television content (such as alcohol advertising) by communicating their own enjoyment and tacit approval of that content to their children. Active discussion, then, appears to be motivated by both positive and negative views. This, then leads to the following hypotheses:

H7: Negative attitudes toward television will predict negative mediation.

H8: Positive attitudes toward television will predict positive mediation.

If negative attitudes lead to negative mediation, then it follows that parents with such attitudes will less likely approve of the use of television as a babysitter. Research supports this expectation, given that scholars such as Lin and Atkin (1988) have found that rulemaking and discussion were strongly related. On the other hand, parents who approve of television content should be more likely to approve of the use of television as a babysitter. Coviewing and positive discussion will not necessarily negate the use of television as a babysitter as well. Indeed, Medrich (1979) found that parent-child television viewing patterns were more closely related in television households in which overall viewing was less.

H9: Negative mediation will negatively predict parental agreement with the idea that television can be a good babysitter.

H10: Positive mediation will positively predict parental agreement with the idea that television can be a good babysitter.

It further follows that parents who communicate positively about television think television has good lessons to reinforce. Thus, they are likely to agree that television is a useful learning tool. Bower (1973), for example, found that parents overwhelmingly saw education as the main benefit of television. Similarly, Anderson and Collins (1988) have suggested that mediation accomplishes little more than increasing children's ability to learn from the medium, with Corder-Bolz (1980) suggesting that discussion significantly enhances children's ability to learn from television. The relationship of negative mediation and views of television as a useful tool, however, is less clear. Negative mediation could lead parents who otherwise enjoy television to use television as a tool to discuss what children should not do (don't act like Bart Simpson, for example) but also lead other parents to avoid television altogether. Thus, it is predicted that:

H11: Positive mediation will positively predict parental agreement with the idea that television represents a good learning tool.

Parents' own communication skills with regard to television also should relate to their communication patterns. For example, skeptical parents should encourage skepticism in their children more so than less skeptical parents. Austin (1993) assumed this was the reason why increased mediation led to increased skepticism among children. Austin and Nach-Ferguson, meanwhile, surmised that the reverse relationship was behind their finding that mediation was positively related to the number of beer brands a child could recite. In other words, parents who enjoyed beer advertising and exhibited less skepticism in effect encouraged their children to "buy" the brands advertised. Ward and Robertson (1972) similarly suggested that television advertising complements communication about product consumption within the family, with high levels of communication about consumption positively related to favorable attitudes toward advertising.

H12: Skepticism toward television programming and advertising will positively predict negative mediation.

H13: Skepticism toward television programming and content will negatively predict positive mediation.

METHOD

A statewide phone survey (N=255) was conducted in Washington state using a purchased list of phone numbers generated by a random digit dialing system. Additional phone numbers were created using the "plus one" method. The phone survey was conducted by undergraduate communication students who completed a half hour training session prior to making calls. The survey took approximately eight minutes to complete and a response rate of 55% was obtained.

Respondents

Respondents were parents who had at least one child living at home between the ages of 2 - 17. If a parent had more than one child in that age bracket they were instructed to think of the child with the most recent birthday when answering the questions. More female parents (58%, n = 144) than male parents (42%, n = 107) responded. Respondents were predominantly Caucasian (90%, n = 225), with a small representation of Native American (n = 9), Hispanic (n = 7), Asian (n = 4) and African American (n = 2) ethnicities. Respondents' ages ranged from 19 - 69 (M=40). The mean education level of the respondents was 3.33, or some college. The mean income level was between $35,000-50,000 and ranged from under $15,000 to over $50,000. Among the parents, 76 (n = 188) were married, with 9 percent (n = 23) single, 6 percent (n = 15) divorced and single, 8 percent (n = 19) divorced and separated, and 2 percent (n = 4) widowed. The gender of the child used as a reference for each parent respondent was fairly evenly split, with 52% girls (n = 132) and 48% boys (n = 123). The child's age also was approximately balanced with each age 2 - 17 making up four to nine percent of the sample (M = 9.45).

Instrument

The instrument was a survey designed to measure parental concern about television genres and issues, positive mediation, negative mediation, viewing habits, attitudes toward advertising, attitudes toward alcohol use and demographics. A list of measures is included in the appendix. Parental mediation measures were based on the mediation scale used by Austin and colleagues (Austin, 1993; Austin & Nach-Ferguson, 1995) for use with children. The measures were modified for relevance to parent respondents, and additional measures intended to tap positive mediation and to make distinctions among mediation for advertising versus mediation for programming were included. Descriptive statistics may be found in Table 1.

Table 1 About Here

Factor analysis was performed on each index to confirm its unidimensionality, and Cronbach's alphas were computed to verify reliability. The scale measuring negative mediation consisted of five items placed on a five-point likert scale (alpha = .76). Parental concern toward television content was measured using a list of three genres, (news, advertising, and entertainment), for which respondents indicated whether they thought the genres generally teach really good things or really bad things to children, as well as a list of three issues, (political, sexual, and issues concerning alcohol), for which respondents indicated whether television teaches children really good or really bad things about each issue. Cronbach's alpha for the concern toward genres scale was .66. Television viewing habits were measured by asking parents how often they had viewed prime time, sports, educational, and news programs in the past week and were analyzed as individual items. Coviewing was assessed by asking parents how often they watched television with their child in the past week. Attitudes toward advertising were measured by asking parents how entertaining, honest, realistic, and stereotypical they perceived ads to be. Demographic measures included education level, marital status, ethnicity, income, age, and gender.

Hypothesis testing

Hypothesis 1 was tested via factor analysis, using principal components extraction. Hypothesis 2 was tested via Pearson's correlation, and Hypothesis 3 via one-way analysis of variance, using the Student-Newman-Kuels test for post-hoc differences among groups. The typology of four groups was developed via the median split procedure for each of the two positive and negative mediation variables, with the respondents then coded as high frequency on one or both mediation valence, or low frequency on one or both. All other hypotheses were tested via hierarchical regression, with control variables (income and education) entered in the first block using the stepwise procedure. Independent variables were entered in the second block using the stepwise procedure. This combination of hierarchical and stepwise procedures allowed for a theory driven, stringent test of each independent variable while preserving power relative to the modest sample size.

RESULTS

Parents reported relatively high levels of television-related interaction overall. For coviewing the mean was 3.5 on a five-point scale (somewhat often). The means for nonvalenced, negative and positive mediation were 3.8 (often), 4.2 (often to very often) and 3.3 (sometimes) respectively.

Hypothesis 1 predicted that factor analysis of the items measuring mediation would produce two distinct factors representing positive and negative parental mediation behavior. Principal components factor analysis produced two distinct factors in which each item of the mediation scale had a factor loading of at least .60 on its primary factor and less than .40 on the secondary factor. The first factor loaded all six items that reflected negative mediation (communication countering television content) and explained 35 percent of the total variance. The second factor loaded the remaining two items which reflected positive mediation and explained 15 percent of the total variance. Positive mediation items included telling a child that they agree with something on television or in ads. Parental mediation scale items and factor loadings are displayed in Table 2. The parental mediation scale measured positive and negative mediation; thus, Hypothesis 1 was supported.

Table 2 About Here

Hypothesis 2 predicted that positive and negative mediation each would correlate with nonvalenced mediation. The correlation for positive mediation and nonvalenced mediation was .26 ($p < .001$), and the correlation for negative and nonvalenced mediation was .21 ($p < .001$), consistent with the prediction.

Hypothesis 3 predicted that significant differences would be found on items measuring parental media use and opinions. This hypothesis also predicted that the differences would be based on a typology constructed of frequent/infrequent, positive and negative parental mediation, as follows:

1. nonmediators: low on both positive and negative mediation
2. optimists: high on positive but low on negative mediation
3. cynics: high on negative but low on positive mediation

4. selectives: high on both positive and negative mediation

In the ANOVA performed to examine differences among typology groups on media use and opinion items, significant differences were found on six of the eight items measuring parental opinions toward television. For parental media use, significant differences were found on two of five items.

On overall concern for what television teaches children, (*F*[3,237]=7.15, *p*<.001), cynics expressed significantly more concern than optimists and selectives. Additionally, optimists expressed significantly less concern than nonmediators. Overall cynics expressed the most concern followed by nonmediators, selectives, and optimists.

For talking about television (*F*[3,246]=7.32, *p*<.001), nonmediators reported talking about television with their children significantly less than optimists, cynics, and selectives. Selectives reported talking about television the most followed by optimists, cynics, and nonmediators.

On the item stating that television is a good babysitter, (*F*[3.246]=3.68, *p*<.01), optimists expressed significantly less disagreement than cynics and selectives. Optimists expressed the least disagreement, with the statement television is a good babysitter, followed by selectives, nonmediators, and cynics.

On the item stating that television is a good learning tool, (*F*[3,239]=5.25, *p*<.01), cynics expressed significantly more disagreement than nonmediators, optimists, and selectives. Cynics expressed the most disagreement, with the statement television is a good learning tool, followed by nonmediators, selectives, and optimists.

For believing that television advertisements are honest, (*F*[3,245]=8.25, *p*<.001), optimists perceived advertisements to be honest significantly more than nonmediators, cynics, and selectives did. Optimists perceived the most honesty in television advertisements followed by nonmediators, selectives, and cynics. The same pattern emerged for perceiving television advertisements to be realistic, (*F*[3,245]=7.58, *p*<.001).

Concerning parental media use, cynics reported viewing significantly less prime time television than optimists and selectives (*F*[3,246]=4.34, *p*<.01). Selectives viewed the most prime time television followed by optimists, nonmediators, and cynics. Cynics also spent significantly less time watching television with their child than selectives did, (*F*[3,246]=2.98, *p*<.05). Selectives reported spending the most amount of time viewing television with their child followed by optimists, nonmediators, and cynics.

In sum, significant differences between the typology groups were found on over half the items measuring parental media use and opinions towards television, as shown in Table 3.

Table 3 About Here

Contrary to the prediction of Hypothesis 4, as shown in Table 4, positive attitudes toward television content did not positively predict viewing television with the child.

Table 4 About Here

Hypothesis 5 stated that watching television with a child (coviewing), would positively predict positive mediation. Coviewing was found to be a positive predictor of positive mediation,(b=.173, p<.05), as expected.

Hypothesis 6 predicted that frequent TV viewing would lead to positive mediation. The study, controlling for education, found the significant result (b=.159; p<.05) produced by viewing primetime TV programs. The result indicated that the more the parents watch primetime TV programs, the more likely the positive mediation to be used. Exposure to other types of programming (such as sports, advertising, news, educational programming) made no difference. Hypothesis 6 is accepted with this result.

The hypothesis that negative attitudes toward television would predict negative parental mediation, was not supported.

Hypothesis 8 predicted that positive mediation behaviors would be predicted by parent's positive views of TV. Parental attitudes toward TV (b=.261; p<.001) significantly led to positive mediation, as expected.

Hypothesis 9 stated that negative mediation will negatively predict agreement with the statement television is a good babysitter. Results showed that negative mediation was a significant negative predictor of the view television is a good babysitter (b=-.178, p<.001). It appears that more frequent negative mediation leads to less of a view of television being a good babysitter, in support of the hypothesis.

Hypothesis 10 predicted that positive mediation would lead to more of a view of television being a good babysitter. Stepwise regression results failed to support this hypothesis.

Hypothesis 11 predicted positive mediation would lead to a view of television as a good learning tool. Positive mediation positively predicted a view of television as a good learning tool, (b=.267, p<.001), in support of the hypothesis.

Hypothesis 12 predicted a positive relationship between parent's skepticism toward television ads and parental negative mediation. Both skepticism measures (b=-.208; p=<.01 for 'ads are realistic'; b=-.154; p=<.05 for 'ads are honest') significantly predicted negative mediation, as expected.

Hypothesis 13 predicted a relationship between positive mediation and skepticism toward advertising. This hypothesis was supported (b=.17, p<.01), as shown in Table 4.

DISCUSSION

This study investigated whether parent-child interaction surrounding television takes a number of conceptually distinct forms, each of which has its own implications in its relationship to other aspects of the television interaction context. The study investigated nonvalenced, positive and negative mediation styles, coviewing, and parental perceptions of televisions usefulness as a babysitter and as a learning tool.

Overall, this study has demonstrated the existence of at least three types of mediation: positive, negative and nonvalenced. It also has demonstrated that parents may embrace both positive and negative mediation strategies, as well as one or neither. It suggests that positive mediation may occur more due to happenstance, with negative mediation associating more with critical viewing and protective motivations.

One strength of this study was its generalizability, due to the random statewide sample employed. Some limitations, however, also should be noted. In focusing only on parental reports, this study measured perceptions rather than actual behaviors. It also tapped only one parent's perspective about one child, when every family member could have a different interpretation of communication patterns within the family. In addition, measures for positive mediation were limited to two items, whereas the negative mediation index included six items. Further development of measures to tap parent-child communication would be useful. This sample also probably was limited in its cultural diversity, given the small proportion of minority respondents.

This study has demonstrated a number of conceptual distinctions among aspects of parent-child interaction regarding television. The results indicate that an assessment of mediation per se does not establish whether discussion is negative or positive. In particular, the results demonstrated the existence of four distinct styles of parental mediation patterns, each of which displayed certain unique motivations and associated behaviors. The data showed striking differences among the four mediation typology groups identified as 1) nonmediators (low level of engagement in both positive or negative mediation); 2) optimists (high level of engagement in positive mediation but low in negative mediation); 3) cynics (high level in negative mediation but low level in positive mediation) and 4) selectives (high level of engagement in both positive and negative mediation).

Generally, optimists possessed more positive opinions on television and TV ads, followed by selectives, then nonmediators, and then cynics. Intuitive results included: 1) nonmediators are less likely to talk about TV with children; 2) optimists are less skeptical about ads ("ads are realistic" and "ads are honest"); 3) cynics are least likely to consider TV a good learning tool.

Based on the eight significant instances of typological differences, characteristics include: 1) Cynics - their attitudes toward TV/ads are the most negative; they are most skeptical about TV ads and least likely to consider TV a useful learning tool or a good babysitter; they watch prime time TV the least; they coview with children the least; cynics, however, talk about TV with children as much as optimists and selectives do, but more negatively; 2) Optimists - their attitudes toward TV/ads are the most positive; they are least skeptical about TV ads and more likely to agree that TV can be utilized as a good babysitter and as a good learning tool; they watch prime time TV and coview with children as much as nonmediators and selectives do; and optimists talk about TV with children just as much as selectives and cynics do, but more positively; 3) Selectives - they have some commonalities with optimists in terms of media use, nonvalenced mediation, coviewing and overall positive attitudes toward TV/ads; selectives are, however, more skeptical about TV ads than optimists; although selectives tend to agree that parents can use TV as a good learning tool, they are more likely to disagree with using TV as a good babysitter compared to optimists; 4) Nonmediators - nonmediators are placed somewhere between cynics and selectives; they are more negative and skeptical than optimists in overall views on TV and ads; nonmediators watch prime time

TV and coview with children the same as optimists and selectives do; nonmediators also tend to agree that TV can be a good learning tool; but their level of discussion with children is significantly lower than the other three groups.

In sum, cynics possess the most negative views on TV/ads, which may make their media use and opinions differ from the other three groups. This is particularly true when comparing cynics with optimists. Both talk about TV with children, but with a different emphasis. Differences between optimists and selectives appear to be derived from their level of skepticism. Differences between nonmediators and optimists may be explained in optimists' more positive attitudes and lower skepticism. Interestingly, the only significant difference between nonmediators and selectives is the frequency of TV discussion.

An important result from this study was its support for the contention that coviewing and mediation are conceptually distinct. That nonmediators, for example, had the same levels of coviewing as the other groups suggested that coviewing can exist without any concurrent discussion. Coviewing alone appears unlikely to develop critical viewing skills in children.

This study also identified parents' positive views on TV as well as active media consumption (watching prime time TV and coviewing with children) as a significant predictor for positive mediation behaviors. Parental positive reinforcement, then, led to their agreement with the idea that TV can be used as a good learning tool. It appears that liking of television is not a motivating force--instead, liking inspires more viewing, which results in more coviewing. Then once parent and child are together in front of the television, they may discuss it via happenstance more than by intent. Their discussion is likely to be more positive than negative. Parents' positive attitudes toward television also may motivate them to direct their children to television as a useful tool. This suggests that parents use television as tool to reinforce lessons, rather than as a source of examples of what not to do.

Although positive attitudes associated with coviewing and use of television as a tool, negative attitudes did not predict the use of negative mediation. The results bordered on significance in the predicted direction (*b*=-.136, *p*=.06), however, suggesting that the lack of a result may be measurement based. Negative mediation may result from dissatisfaction with a specific portrayal of sexual issues, rather than with their view of television content as a whole. Their concern, then, may vary widely across topics and situations.

In support of this interpretation, the results did show that negative mediators tended to be more critical viewers overall, and that they tended to watch less television. This, then supports the Gallup (1989) finding that parents tend to turn off the television if content offends them, but it also supports Dorr et al.'s (1989) assertion that parents discuss television more when their values appear threatened. These results suggested that while parents may turn off what they don't like, they may nevertheless continue discussing it.

Negative mediators do appear less willing to use television as a babysitter. Positive mediators, however, are not any more likely to do so. This could be because positive mediators also tended to coview more and watch more prime-time television. Thus, their children simply may be less likely to view television alone. Negative mediators, on the other hand, use television less, coview less and also appear to want their children around it less.

Future research should flesh out the distinctions among types of mediation styles more fully, including the implications of these strategies for children's perceptions and behaviors. This study focused exclusively on parental perceptions, which limits its explanatory ability. Although based on theory, this study is primarily descriptive and is limited in its predictive value for explaining media uses and effects for children. One barrier to this study's explanatory power, for example, is that children may view the same family environment differently than their parents have reported to us. Some studies have suggested, based on children's reports, that parents do not mediate television to a great extent. These results, on the other hand, suggested that parents think they do mediate television quite a bit ($\underline{m}$=3.8 on a five-point scale). It could be that children key more on the negative aspects of mediation rather than the positive, whereas parents also consider reinforcement of television content as "mediation." Children also may not consider coviewing as tacit reinforcement, even though in this study coviewing tended to associate with positive reinforcement of television content. This merits further investigation, since coviewing could indeed represent tacit reinforcement given the results of this study. These findings could suggest that advising parents to watch television with their children is insufficient, and at times even counterproductive, advice if the intent is to cultivate critical viewing skills in children.

This study suggests a number of avenues for future research, given the distinctions that emerged among various aspects of parent-child interaction regarding television. It appears from these results that some parents do indeed take on the tube, while others, more complacent, reinforce many of the lessons their children see portrayed. The motivations and implications of these parenting patterns merit more study. It seems unlikely that the mere manufacture of a V-chip will displace the importance of actual communication between parent and child about the realities and values of television content.

Table 1

Means, standard deviations, and reliabilities of variables

	N	Means	S.D.	Range	Alpha
Age (child)	255	9.45	4.71	2-17	
Index: Attitudes (pos/neg)	245	15.56	4.18	6-30	.66
TV_politics	250	2.71	1.07	1-5	
TV_sexual issues	249	1.93	1.11	1-5	
TV_alcohol use	251	2.28	1.22	1-5	
TV_news	253	3.28	1.15	1-5	
TV_advertisements	255	2.29	1.23	1-5	
TV_entertainment	255	3.07	1.13	1-5	
Index: Positive mediation	250	6.58	2.07	2-10	r=.33***
Agreement with TV	252	3.70	1.23	1-5	
Agreement with TV ads	251	2.87	1.31	1-5	
Index: Negative mediation	243	25.35	4.40	6-30	.74
TV is not OK	252	4.64	[illegible]	1-5	
TV ads are not OK	252	4.16	1.15	1-5	
Things on TV are not real	253	4.53	1.01	1-5	
TV ads aren't true	251	4.22	1.08	1-5	
Tell more about TV	251	3.95	1.23	1-5	
Explain ad's intention	251	3.76	1.36	1-5	
Talk about TV	254	3.83	1.19	1-5	
TV ads are honest	253	2.11	.94	1-5	
TV ads are entertaining	254	3.46	1.02	1-5	
TV ads are realistic	253	2.04	.78	1-5	
TV ads teach stereotypes	251	3.98	.84	1-5	
TV is a good babysitter	254	2.02	1.13	1-5	
TV is a good learning tool	247	3.44	1.01	1-5	
Watch prime time TV	254	2.99	1.22	1-5	
Watch sports programs	253	1.98	1.03	1-5	
Watch educational shows	252	3.06	1.25	1-5	
Watch news programs	254	3.87	1.21	1-5	
Coviewing	254	3.50	1.30	1-5	
Index: Desirability	240	11.84	4.08	4-20	.83
People in ads_successful	251	2.70	1.28	1-5	
People in ads_healthy	249	2.72	1.28	1-5	
People in ads_fun	247	3.02	1.27	1-5	
People in ads_attractive	249	3.50	1.19	1-5	
Index: Norms (Real Life)	241	9.54	3.28	4-20	.86
Beer drinkers_successful	249	2.37	1.01	1-5	
Beer drinkers_healthy	246	2.26	.91	1-5	
Beer drinkers_fun	247	2.58	1.06	1-5	
Beer drinkers_attractive	247	2.38	.92	1-5	

Table 1 (Cont.)

Means, standard deviations, and reliabilities of variables

	N	Means	S.D.	Range	Alpha
No. of children	251	1.96	1.02		
Income	208	1.96	1.02	0-3*	
Education	250	3.33	1.09	1-5**	
Age (parent)	246	39.56	7.88	19-69	

Note: High score indicates an answer in agreement with the statement or a more frequent behavior

* Income : 0 = <$15,000; 1= over $15,000 but <$35,000; 2 = over $35,000 but <$50,000; 3 = over $50,000.

** Education: 1=less than high school; 2=high school graduate; 3=some college; 4 =college graduate; 5 = graduate work;

*** P=<.001

Table 2

Factor loadings : Parental mediation
(Principal component analysis)

	Factor 1	Factor 2	Communality Estimates
Tell Ad's Intention	0.71723	-0.16484	.54159
Ad is not True	0.65419	-0.27289	.50244
TV Ad is not OK	0.64785	-0.18622	.45439
TV is not OK	0.64100	-0.00008	.41088
Tell More about TV	0.62186	0.03801	.38815
TV is not Real	0.61917	-0.22920	.43590
Agree with TV	0.36670	0.74539	.69007
Agree with TV Ad	0.39596	0.66264	.59588
Eignevalue	2.83431	1.18499	
Variance Explained by Each Factor	35.4 %	14.8%	

Table 3

Results of stepwise regression tests of hypotheses~

	Dependent Vars Independ. Vars	R^2 Change	Beta	DF	F	Prob (Model)
	Coviewing					
	Education	.030	-.173*	(1,193)	5.975	.02
H4	Attitudes	.000	.005	(2,192)	2.974	.05
	Positive Mediation					
	Income	.020	-.142*	(1,195)	4.040	.05
H8	Attitudes	.066	.261***	(2,194)	9.185	.000
	Income	.021	-.145*	(1,202)	4.353	.04
H5	Coviewing	.030i	.173*	(2,201)	5.379	.005
H13	Income	.022	-.147*	(1,201)	4.463	.04
	Ads are realistic	.028	.171**	(2,200)	5.310	.006
	Income	.020	-.141*	(1,200)	4.084	.04
H6	Watch Primetime	.025	.159*	(2,199)	4.678	.01
	Negative Mediation					
H7	Attitudes	.018	-.136	(1,191)	3.578	.06
H12	Ads are realistic	.043	-.208**	(1,197)	8.967	.003
	Ads are honest	.022	-.162*	(2,196)	7.067	.001
	TV as a Babysitter					
	Income	.020	-.143*	(1,198)	4.143	.04
H9	Neg Mediation	.032	-.178**	(2,197)	5.435	.005
	Income	.024	-.154*	(1,202)	4.915	.03
H10	Pos Mediation	.011	.109	(2,201)	3.694	.03
	TV as a Learning Tool					
H11	Pos Mediation	.071	.267***	(1,196)	14.990	.0001

(Note: * P=<.05; ** P=<.01; *** P=<.001)

~ Controlling variables (education and income) are entered first in the equation when they are significant. Betas reported from the block of entry.

TABLE 4

Parental concern, coveiwing, attitudes toward TV/AD, and TV viewing by mediation styles ~

	Mediation styles					
	Non-Mediators	Optimists	Cynics	Selectives	F	DF (Model)
Desirability of ad	11.35	12.06	12.56	11.58	1.00	(3,232)
Social norms	9.79	10.09	8.87	9.40	1.41	(3,233)
Attitudes about TV	15.09b	16.98ab	13.64ac	16.28c	7.15***	(3,237)
Freq of talk about TV	3.25abc	4.02a	3.96b	4.07c	7.32***	(3,246)
Ads are honest	2.04a	2.63abc	1.82b	2.00c	8.25***	(3,245)
Ads are entertaining	3.52	3.54	3.47	3.29	0.83	(3,246)
Ads are realistic	1.96a	2.41abc	1.74b	2.04c	7.58***	(3,245)
Ads do stereotype	4.04	3.87	4.16	3.90	1.54	(3,243)
TV as a babysitter	1.96	2.43ab	1.74a	2.01b	3.68**	(3,246)
TV as a learning tool	3.45a	3.70b	3.00abc	3.56c	5.25**	(3,239)
Watch Primetime	2.96	3.09a	2.54ab	3.29b	4.34**	(3,246)
Watch Sports	2.00	2.09	1.86	1.99	0.48	(3,245)
Watch Education	2.85	3.20	2.95	3.20	1.30	(3,244)
Watch News	3.99	3.83	3.72	3.93	0.58	(3,246)
Coviewing	3.40	3.56	3.16a	3.82a	2.98*	(3,246)
	(n=67)	(n=54)	(n=57)	(n=72)		

(Note : * P=<.05; ** P=<.01; *** P=<.001 for the entire Model;

~ Sharing the same letter indicates significant differences between the groups.

Appendix

Measures used in the analysis

Coviewing:
five-point scale: never to often

How often do you and your child watch TV together?

Mediation Frequency:
five-point scale: never to often

A. Nonvalenced:
How often do you talk about TV with your child?

B. Negative Mediation:
I'd like to know how often tell your child more about something you've seen on TV?
How often do you tell your child that something you've seen somebody do on TV is not OK?
How often do you tell your child that something on TV is not real?
How often do you tell your child that an ad on TV says something that isn't really true?
How often do you tell your child that something you've seen in a TV ad is not OK?
How often do you explain to your child what ads on TV are trying to do?

C. Positive Mediation:
How often do you tell your child that you agree with something you've seen in a TV ad?
How often do you tell your child that you agree with something you've seen on TV?

Attitudes Toward Television Content:
five point scale: teaches really bad things to teaches really good things

A. Topics:
Politics
Sexual issues
Alcohol use

B. Genres:
TV News
Advertisements
Entertainment programs

Desirability of Alcohol Advertising:
five-point scale: strongly disagree to strongly agree

People in beer ads are successful.
People in beer ads are healthy.
People in beer ads are fun.
People in beer ads are attractive.

Perceived Social Norms for Alcohol:
five-point scale: strongly disagree to strongly agree

People who drink beer in real life are successful.
People who drink beer in real life are healthy.
People who drink beer in real life are fun.
People who drink beer in real life are attractive.

Skepticism Toward Television Advertising:
five-point scale: strongly disagree to strongly agree

TV ads are honest.
TV ads are realistic.

Attitudes Toward Advertising:
five-point scale: strongly disagree to strongly agree

TV ads are entertaining.
TV ads teach stereotypes.

Attitudes Toward TV Source Use:
five-point scale: strongly disagree to strongly agree

TV is a good babysitter.
TV is a good learning tool.

Viewing Habits:
five-point scale: not at all to every day

About how many days a week do you watch the following types of shows?

Prime Time TV?
Sports programs?
Educational shows?
News programs?

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Consideration for choosing triangulation as mass communication research method

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ABSTRACT

This review discusses various views of triangulation as a research methods. The author believes that by triangulating qualitative and quantitative research methods in conducting mass communication research -- a discipline that has been traditionally grounded in the logical-positivist research paradigm -- mass communication researchers can extend beyond discriptive studies and effect positive social change. The study explicates triangulation and explores the different schools of thought on how the method should be applied.

I. INTRODUCTION

Mass communication researchers face several challenges over the next decade. These challenges arise out of the pace of change in the society. Over the last quarter of a century, we have witnessed the acceleration of information technologies, the shift from a production to an information-based society, the decline of our educational system, and ethnic conflicts that accompanied recent democratization. While some scholars advocate addressing such societal issues at the micro level (emphasizing community and personal development), others believe that globalization necessitates exploring societal problems at the macro level.

Statement of the problem

Indeed, the magnitude of social problems facing the world demands that mass communicators increase their efforts to effect positive social change. Therefore, researchers must ask themselves the following critical questions: Can mass communication research do more than describe? If so, how can mass communication research achieve broader and better results?

One course of action may be to consider extending beyond the traditional quantitative studies and engage in qualitative contextual analysis. Since the early 1970s, several communicators have advocated such change through triangulation. Few researchers, however, appear to be heeding the advice (Zerbinos, 1985).

Purpose and objectives

The study discusses various views of triangulation as a research methods. The author believes that by triangulating qualitative and quantitative research methods in conducting mass communication research -- a discipline that has been traditionally grounded in the logical-positivist research paradigm--, mass communication researchers can extend beyond discriptive studies and effect positive social change. Specifically the study has three main objectives:

(1) to explicate triangulation as a methodological process,

(2) to identify obstacles to triangulation, and

(3) to introduce various perspectives on triangulation.

Research Questions

Focusing on the role of mass communication research in addressing social issues, this research investigates the following questions:

(1) Can mass communication research do more than describe?

(2) What is the role of triangulation in extending mass communication research?

(3) Can triangulation effectively occur both within

and between paradigms?

Study overview

By suggesting that triangulation can be used to contextualize mass communication studies, this study supports the ideal that the media can and should do more than describe. The study defines triangulation and explores the different schools of thought on how the method should be applied. This section first introduces the debate over whether triangulation can occur between or only within paradigms. Then, it discusses the effects of ideology on individual approaches to triangulation. Finally, the study concludes with a summary and conclusions drawn from the aforementioned research questions.

II. COMPARING THE MEANINGS OF TRIANGULATION

Derived from navigational studies, the concept of triangulation is based on the idea that in order to know exactly where an object lies, one must view the object from at least two other points (Silverman, 1993). In communication research, however, no limit to the number of methods nor perspectives one may utilize in a given study exists (Fiske, 1994). A researcher may triangulate using several methods and data sources in various combinations.

Huberman and Miles (1994) define triangulation as "multiple measures that ensure that the variance reflected is that of the trait or treatment and not that associated with the measures" (p. 438). This is best achieved, the authors say, by multiplying independent measure and sources of the same phenomenon:

> (If) informants make the same claim independently, and the researcher observes the phenomenon; test scores back up work samples and observations. 'Grounded' theorists have long contended that theory generated from one data source works less well than 'slices of data' from different sources (p. 438).

Therefore, the authors prescribe choosing triangulation sources that have different biases and strengths so that they complement one another.

While communication researchers agree that triangulation must include at least two methods or data sources in answering the same research question, many researchers hold diametrically opposed views on other criteria for triangulation. Many qualitative researchers assert that the differences between qualitative and quantitative research stem not from methodological choices, rather from differing philosophical assumptions (Ting-Toomey, S. 1994). Consequently, this radical perspective contends that it is impossible to effectively mix research methods across qualitative and quantitative research paradigms.

However, one can mix methods within each paradigm. On the contrary, others encourage triangulating both between and within research paradigms. These researchers favor comparing both different kinds of data derived from qualitative and quantitative research, as well as data collected from different sources. Since the criteria for judging qualitative research remains vague, several research

582

reviewers find it easier to evaluate studies with a quantitative component. Consequently, these studies are more likely to be funded (Morse, 1994).

Between paradigm triangulation

According to Silverman (1993), triangulation seeks to overcome the "context-boundedness" that may result from collecting data qualitatively (p. 152). Therefore, he advocates triangulation between qualitative and quantitative research paradigms. This approach compares different kinds of data collected -- both data collected in words and numbers -- as well as different methods of data collection (for example, data collected from questionnaires and focus groups).

Fiske (1994) shares Silverman's view on the need to triangulate between paradigms. He identifies five basic types of triangulation: (1) *data triangulation* -- the use of a variety of data sources in a study; (2) *investigator triangulation* -- the use of several different researchers or evaluators; (3) *theory triangulation* -- the use of multiple perspectives to interpret a single set of data; (4) *methodological triangulation* -- the use of multiple methods to study a single problem; and (5) *interdisciplinary triangulation* -- the use of other disciplines such as art, sociology, history and anthropology to broaden one's understanding of a phenomenon (p. 214-15). The author views triangulation as a heuristic tool extending the boundaries of research.

Perhaps in an attempt to juxtapose qualitative research besides well-established traditional quantitative studies, Morse (1994) suggests that in order to receive funding for research, qualitative researchers need to include a quantitative method in their proposals. While noting that two or more qualitative methods constitute a triangulation, she believes that researchers can gain a more holistic view by observing phenomena through different perspectives. The most fruitful motive for including quantitative methods to qualitative studies, she says, would be to answer questions of "how much" or "how many" that qualitative studies, because of the small sample size, cannot answer.

Within paradigm triangulation

While the above researchers (Silverman, 1994; Morse, 1994; Miles and Huberman, 1994) all advocate triangulating between paradigms, many scholars vehemently appose this practice . According to these proponents of the qualitative research paradigm, mixed-genre texts do not triangulate.

Morse (1994) strongly oppose the mixing of inquiry approaches at the paradigm level. They argue that one cannot adhere to the objectivist ideal of science and the subjectivist involvement of interpretivism simultaneously. The authors scold other researchers in the field for agreeing that paradigms are irreconcilable; yet, they "seek not accommodation but dialectically enhanced inquiry benefits through a pluralistic acceptance of multiple ways of knowing" (p. 537).

Reflecting the dialectical nature of between paradigm triangulation, Saloman (1991) maintains that social issues are vastly complex and thus require both an "analytic" and a "systemic" approach to inquiry. He believes that it is possible to use the two approaches in complementary fashion across studies toward more complete understanding.

However, Leininger (in Morse, 1994) disagrees with the idea that between paradigm triangulation can foster "complete understanding" of any phenomenon. She calls efforts to triangulate qualitative and quantitative methods "multiangulation". Such practices, she says, violate the integrity, purposes, and epistemic roots of each paradigm and lead to inaccurate, questionable, and meaningless research findings.

"With such practices, the philosophic tenents, axioms, and purposes of the two paradigms become eroded, and the work becomes noncredible" (p. 102). However, Leininger finds merit in triangulating within a paradigm. Utilizing within paradigm triangulations, she says, ensures that one's findings are congruent with the philosophical aims of each paradigm.

In sum, postmodern proponents of within paradigm triangulation posit that their qualitative research is inherently multimethod in focus. Therefore, their use of multiple methods, or triangulation, reflects an attempt to secure an in-depth understanding of the phenomenon in question. Objective reality can never be captured. Therefore, the goal of triangulation is not a tool or strategy to achieve scientific validity, but a means to achieve a superior alternative to validation. The combination of multiple methods, empirical materials, perspectives and observers in a single study is best understood, then, as a strategy that adds rigor, breadth, and depth to any investigation.

The above sections detailed two views of triangulation as a methodology. In order to understand the varying attitudes towards triangulation, it is necessary to briefly compare the philosophical aims of two world views that influence the two perspectives.

III. POSITIVISM VERSUS AND POSTMODERNISM

While human communication scholars consult various methodological paradigms in conducting research, they have traditionally held two sometimes diametrically opposed ideological perspectives that influence their preferred research designs and methods. At the heart of these opposing perspectives has been the debate over the criteria for knowing. In communication, identifying "reality" is a primary concern of researchers who aim to describe, explain and or predict human action (Hsia, 1988). This discussion of positivist versus postmodern research paradigms compares the philosophical aims of each.

On one hand, positivist communication scholars who adhere to the experimental research paradigm focus on control and observation as critical for conducting research, (Hsia, 1988). Positivism asserts that 1) reality exists outside of the human experience and can be observed and measured objectively; 2) reality can be divided into components and reconstructed statistically; 3) human beings are basically similar and can be categorized; and 4) by generating general laws of behavior, researchers can explain phenomena across settings. Furthermore, these researchers conduct research that focuses on breadth, rather than depth. By sampling as many pieces of the pie as possible, researchers believe that they can reconstruct the world statistically. Therefore, quantitative researchers view the merit of triangulation as a temporary supplement to address unresolved methodological challenges.

On the other hand, postmodern communication scholars adhering to the non-experimental research paradigm believe that society is too complex to be reduced to observable units (Hsia, 1988). These researchers often hold a humanist view of reality. According to this view, one cannot construct an empirical test that explains human action because too many variables must be excluded for the purposes of the experimental environment.

Postmodernists assert that 1) no single view of reality exists outside of human beings; 2) observers create reality as part of the research process; 3) reality must be viewed holistically and cannot be reconstructed by viewing components; 4) human beings are unique and cannot be easily categorized; and 5) researchers should emphasize depth rather than breadth (Smith, 1988).

These philosophical assumptions diametrically opposed those adhered to by the positivist school of thought. Therefore, postmodernists challenge the very foundation upon which the entire logical positivist paradigm lies. Since they view scientific experiments as a farce by their artificiality, many postmodern researchers see little merit in triangulating their research efforts with quantitative methodologies.

The above philosophical aims influence the research designs researchers employ in their approaches to solving communication problems. On one hand, positivist researchers often choose designs from the experimental research paradigm, analyzing empirical evidence statistically. On the other hand, postmodern researchers most often choose a method from the non-experimental research paradigm, analyzing empirical evidence critically. The following section of this study summarizes the objectives of triangulation, and suggest ways for applying the method in mass communication.

IV. CONCLUSION

All scientific and ideological revolutions encounter resistance. Some may argue that by proposing the opposite of the established norm (one form of challenging existing paradigms), individuals can ignite active debate by scholars in the field. Examples of this approach would be Walter Rodney's (1982) claim that *Europe Underdeveloped Africa*, and feminist theories assertion that women are innately superior to men. Rodney's claim that Western Development theories resulted in Africa's dependence on the West led to the formation of World Systems Theories. Now, many recognize the importance of the West establishing harmonious relationships with Third World countries. One should hope that one day the apparent extremity of the Western feminist movement would result in both sexes being equally valued.

Similarly, postmodernism represents individuals turning the established positivist paradigm upside down. This could only have occurred because, as with the situations of international development and the plight of women internationally, some irreconcilable problems plagued the positivist paradigm. Hopefully, postmodernism will ignite similar debates that lead to a balance between these apparent opposite.

Perhaps, through the application of triangulation, communication theorists are moving towards this state of balance. The debate over quantitative versus qualitative research methods has reduced as professionals in the field recognize that both are necessary for communication theory building (Arnold, 1984; Downey and Ireland, 1979; Parsons et al. 1982; and Smith 1983). While many hold steadfast to one research paradigm, many communication scholars agree that the individual research problem should dictate the approach. The union of qualitative and quantitative methods to theory building, is particularly beneficial to communication students because, as Berkenkotter (1991) notes, quarrels over methodological approach only act as obstacles to reading and evaluating research and to training graduate students to conduct multimodal inquiry.

According to Dershiwsky and Packard (1992), focusing on readily quantifiable outcomes leaves out quite a few essential social and behavioral elements. Likewise, purely qualitative methods are endanger of being overtly subjective. They favor combining numbers and words in the form of multi-method research designs. This marriage of two previously diametrically opposing views of research methods may strengthen theories by adding scientific precision to qualitative research and broadening the scope of quantitative research.

Can mass communication research do more than describe? Yes, and it must. Whether this is accomplished by administrative researchers efforts to improve established institutions or critical researchers reconstructing these institutions, the fundamental objective is that mass communication research *must* extend beyond description and work to contribute to positive social change.

What is the role of triangulation in extending mass communication research? Most communication researchers favor triangulation. Individual ideologies, however, affect how one perceives triangulation should be conducted. Postmodernists usually favor within paradigm triangulation. Positivists, on the other hand, attempt to validate qualitative interpretations with quantitative analysis. Either way, triangulation has already extended mass communication research.

Can triangulation effectively occur both within and between paradigms? While some problems can be addressed adequately using either qualitative or quantitative methods, is this true for all research problems? The author supports the idea that individual research problems should dictate methodological choice, and rejects the notion that qualitative and quantative paradigms reflect diametrically opposed views that can never be reconciled. In scientific as well as methodological revolutions, it is necessary to posit radical position in order to challenge the existing paradigms. History may prove, however, that these two perspectives merge at some point in space reflecting reality.

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Prime Time Stereotyping on the New Television Networks

Abstract

This content analysis examines gender portrayals in a sample of prime time promotional announcements broadcast on five television networks (ABC, NBC, CBS, FOX and UPN) during one week in 1995. Findings supported the hypothesis that stereotypical portrayals of women varied due to the television network's target audience. Specifically, television programs on networks that appeal to a younger male audience contained more stereotypical female characters than other network programming produced for a more general audience.

Paper presented at the Communication Theory and Methodology Division of the Conference of the Association for Education in Journalism and Mass Communication, Anaheim, California, August 10 - 13, 1996 by:

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Running Head: PRIME TIME STEREOTYPING ON THE NEW NETWORKS

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Prime Time Stereotyping on the New Television Networks

Television portrayals of women have been the focus of both popular and social scientific inquiry for decades. A great deal of social science research has been generated to examine the issue of female stereotyping in prime time network television programs and advertising. This research has typically described a male-dominated world with females delegated to stereotypical, minor roles. Although portrayals of women on the three traditional commercial broadcast networks (ABC, CBS, and NBC) may have become less stereotypical over the past decade, with shows like Murphy Brown and Designing Women, the launch of three new television networks in this decade has complicated the issue.

These new networks must compete with the established networks for viewers and advertising dollars. In order to accomplish this formidable task, the Fox, United Paramount, and Warner Brothers networks developed a competitive start-up strategy to target younger viewers than the three veteran networks, and are specifically interested in a young male audience (Coe, 1995).

This content analysis examines stereotypical portrayals of women in prime time television programs on each of these networks, testing the following hypotheses:

1. On all networks, female characters will not appear as frequently as male characters.
2. Television programs on networks that target a younger male audience will contain more stereotypical female characters than other network programming produced for a more general audience.

Theory

Uses and Gratifications Theory

Commercial television networks sell advertising time based upon the size of their viewing audiences. The revenues or advertising dollars generated for each program, therefore, depend on the program's viewing audience size as reported by A. C. Nielsen ratings data. Networks try to maximize audience share in the desired target market in order to increase advertising revenues. Prior to this decade, the three traditional commercial television networks dominated the market and generally broadcast programs designed to appeal to a large, broad audience.

When the Fox, Paramount, and Warner Brothers television networks launched during this decade, they faced the difficult task of competing with these firmly established, traditional networks. The fledgling networks adopted a marketing strategy to broadcast programs targeted at a narrow audience segment, specifically a much younger, male audience than the traditional networks.

Uses and gratifications theory explains why network programmers target certain shows to specific audiences. Under this theoretical approach, researchers study the sources (both psychological and social) of audience members' needs which influence their expectations toward media (and alternative, competing sources), which result in various levels of exposure (or other activities) that cause the gratification of needs or some other (possibly unintended) consequence (Katz, Blumler, & Gurevitch, 1974, p. 20). In describing the uses and gratifications approach, Katz, Blumler, and Gurevitch specify the following five assumptions:

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1. Audience members are described as active, demonstrating goal directed behavior toward the media;

2. Audience members link media choices with perceived gratifications;

3. Audience members choose between many sources, including the media, to satisfy their needs;

4. Audience members can explain their motives for using media sources at particular times; and

5. Value judgments pertaining to various audience uses of the media should be avoided (Katz, Blumler, & Gurevitch, 1974, p. 21-22).

The uses and gratifications approach describes many examples of how media content can serve audience needs, including providing release from conflict or tension, supplying information or news, presenting entertainment or amusement, reinforcing personal identity, and assisting in integration into social group membership (Katz, Blumler, & Gurevitch, 1974, p. 27).

Recent theoretical refinement of the approach has defined audiences as "variably active" and identified two types of audience attention to the media: "ritualized" or diversionary viewing which is a "less active or less goal-directed state" and "instrumental" or utilitarian viewing, which is "active and purposive" (Rubin, 1994, p. 427). Finn (1992) has defined audience activity levels as either proactive (serving mood management needs) or passive (providing social compensation).

By applying this theoretical approach to television viewing behavior, networks attempt to predict viewers' selection of television programs based on the perceived needs and interests of the target audience. In order to cultivate programs for a specific audience, the Fox, Paramount, and Warner Brothers networks broadcast shows designed to appeal to the specific interests of the young, male viewer. One way to gain the attention of this particular audience is to portray attractive female characters in provocative attire. This type of portrayal exemplifies one pattern of female stereotyping.

Stereotypes

Walter Lippman is credited with the introduction of the concept of stereotyping to social scientific research in 1922 (Seiter, 1986). Over the past seventy years, vast quantities of research has been generated concerning this concept. Erving Goffman's (1974) frame analysis theory provides one theoretical basis for the stereotyping process. According to Goffman, individuals make sense of their experiences by framing each set of stimuli to corresponding sets of expectations that explain given social situations (1974, pp. 10 - 11). Universal or subtle social cues dictate which frame is appropriate in any given context. Frame analysis is based on the assumption that individuals view events as consistent experiences where different rules or frameworks can be employed as "a way of describing the event to which it is applied" (Goffman, 1974, p.24).

Goffman (1979) illustrated his framing analysis theory with examples of gender portrayals in newspaper and magazine advertisements. Although portrayals in advertisements do not necessarily correspond to the actual behavior of men and women, they do represent how people perceive men and women to behave (Goffman, 1979, p. vii). Media cues depicting women as deferent, or sexual, therefore, could cause framing errors when applied to real life settings. A framing error describes a misinterpreted cue between two individuals (e.g., an epileptic seizure is mistaken for drunkenness) (Goffman, 1974, p. 311). Media cues generated by stereotypical portrayals of women in prime time network television programs could cause similar framing errors regarding gender social roles.

Hansen and Hansen (1988) examined the effect of sex role stereotype portrayals in music videos on the accessibility of an individual's sex role schemas (or structured cognitive processing patterns). When multiple schemas exist to explain a given situation, the selected schema typically come from the most frequently activated schema in the past because it is easier to remember (or more accessible in recent memory); a schema can also be "primed" or enhanced by its recent activation from memory (Hansen & Hansen, 1988, p. 288). In an experiment, the researchers exposed individuals to either sexual stereotyped or non-stereotyped music videos and then assessed the subjects' evaluation of a man and woman interacting as sexually stereotyped or non-stereotyped behavior. Their findings supported that exposure to stereotyped music videos contributed to the "priming" of stereotyped schemas in subjects. Hansen and Hansen (1988) concluded that: "The impact of mass media fantasy depictions of sex role stereotypic persons and behaviors . . . can be extended to the domain of the real by their capacity to prime biased appraisal of subsequently encountered real persons and behaviors" (p. 312). Television network programs' stereotypical portrayal of women could similarly "prime" viewers' schemas and reinforce stereotypical attitudes.

Feminist Theory

The fundamental tenet of Feminist Theory focuses on "a theoretical acknowledgment of women's traditional devaluation . . . in relation to men with the assumption that the relationship needs to change" (Steeves, 1987, p. 96). Liberal feminism assumes that this change can be accomplished within existing democratic political structures because they promote an ideal of equal opportunities for all members.

In applying Feminist Theory to stereotypical sex role portrayals, some liberal feminists argue that irrational prejudice can be overcome simply by rational argument (Steeves, 1987, p. 100). Other liberal feminists view stereotypes as more complex issues resulting from socialization. By adopting a cognitive (Kohlberg, 1966) or social learning (Bandura, 1977) approach, liberal feminists interpret children's sex role development and stereotypes as a pattern of modeling behavior and subsequent reinforcement that can be altered via rational argument, legal action, and the creation of alternative female role models (Steeves, 1987, p. 100). Stereotypical portrayals of women during prime time television programs, therefore, could perpetuate stereotypes through modeling behaviors; these same stereotypes may be undermined by presenting alternative televised role models of women.

Cultural feminism similarly believes that media portrayals of women should be "deconstructed" (identified as patriarchal oppression against women) in order to advance women's equality. Susan Bordo describes the body as a cultural medium that is a locus of practical, direct social control (1993, p. 165). Essentially, there is no "natural" body; the body always exists within a cultural context. In Western culture, the mind or spirit has long been regarded as superior to the physical or material body (Cirksena and Cuklanz, 1992, p. 33). Influenced by such philosophers as Plato, Descartes, and Augustine and the tenets of Christianity, Western culture views the mind as separate from the body: The mind is conceived as the will, the soul, creativity, and freedom imprisoned by the animalistic, ravenous, sinful body (Bordo, 1993).

Since women have long been defined by their bodies through its reproductive and caregiving nature, this mind/body dualism is a gendered one in patriarchal society. Women's plight in Western culture has been dictated by their inextricable link to the body, implying "the ideological belief that women represent a lower order of beings, that they are 'less transcendental of nature than men'" (Wooley, 1994, p. 20). Many feminist scholars view the body as a battleground where women's bodies and their representation have long been controlled by men (Wooley, 1994).

Another way feminist theorists deconstruct images of women in the media is by identifying the media's patriarchal disposition to depict women as objects. Liesbet van Zoonen describes this concept as the "display of woman as spectacle" resulting in "the 'objectification' of women" (1994, p. 87). Due to this objectification, mediated portrayals of women tend to be more stereotypical compared to their male counterparts. Female characters, indeed, are much more likely to be portrayed as sexual objects or physically beautiful than male characters. These "appearance norms" impose a submissive status to women who are to be looked at and subsequently judged; appearance is a form of social control over women practiced by a patriarchal society (Rothblum, 1994, p. 71).

Prior Content Analyses

A vast body of research has been generated to study stereotypical portrayals of women on television. Bretl and Cantor (1988) summarized 15 years of content analyses in television commercials in the U. S. Since 1971, findings indicated that male characters consistently appeared with greater frequency than female characters and female characters were delegated to traditional settings, roles, and occupations. Male narrators in advertisements were also the norm. Although Bretl and Cantor (1988) indicated that these gaps between male and female character portrayals may be declining, recent content analyses do not support this hypothesis [Smith (1994), Signorielli, McLeod, & Healy (1994), Craig (1992), Lovdal (1989)]. In a study of advertisements on MTV, Signorielli, McLeod, and Healy (1994) found that women were consistently underrepresented and stereotypically portrayed. The researchers specifically compared female and male characters based on frequency of portrayal, physical fitness, attractiveness, type of attire (provocative vs. neutral), and frequency of a character portrayed as the object of another character's stare (or gaze) (Signorielli, McLeod, & Healy, 1994, p. 93). The findings confirmed that stereotypical portrayals of women existed in every category: Female characters appeared less often, were more physically fit, more attractive, wore more provocative attire, and were objects of another character's stare more often than male characters.

Comparable to the current study, Donald Davis (1990) conducted a content analysis of prime time network television programs to determine sex role stereotyping. Prior content analyses of network programming [Head (1954), DeFleur (1964), Tedesco (1974), Turow (1974), Signorielli (1989)] all encountered underrepresented and stereotypical portrayals of women. In his more recent study, Davis categorized male and female prime time television characters by frequency of portrayals, apparent age, hair color, parental and marital status, and provocative attire (1990, p. 329). His findings indicated that female characters were portrayed less often and were more likely to be younger, blonde, and dressed more provocatively than their male counterparts (Davis, 1990, p. 329). The marital and parental status of female characters was also more likely to be identified than for male characters (Davis, 1990, p. 330). Davis concluded that the prime time television portrayals of female demographic data had not significantly changed since the 1950s.

Based on content analyses generated over the past 40 years, portrayals of women on network television programs appear to have remained consistently stereotypical. This study's first hypothesis, that female characters will appear less frequently than male characters on prime time network television programs, corresponds with the trends evidenced in previous content analytic research findings [Smith (1994), Signorielli, McLeod, & Healy (1994), Craig (1992), Lovdal (1989)]. The theoretical definition of the frequency of female character portrayals will be based on the number of female actresses portrayed in major, minor, and voice-over announcer roles on the networks' prime time programming compared to their male counterparts in the same roles.

With the recent launch of three new television networks in this decade,[1] stereotypical portrayals of women may actually have increased due to the young, male audiences targeted by these networks. This study also hypothesizes that television programs on networks that target a younger male audience will contain more stereotypical sex role portrayals than other networks' programming. According to television network audience data, FOX and UPN were identified as the two networks that target young male

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[1] These three new television networks are Fox, Paramount, and Warner Brothers. Due to its lack of representation in the market studied for this analysis and significantly smaller number of affiliates nationwide than UPN, the Warner Brothers Network has been excluded from this study.

viewers.[2] Based on a uses and gratifications theoretical perspective, television networks will provide programming that appeals to the perceived needs of their target audiences. Since the newer networks target a youthful male audience, their programs have a greater likelihood of containing stereotypical portrayals of women to appeal to this specific audience segment. Various types of character portrayals measured in previous content analyses (e.g., physical attractiveness, provocative attire, physical fitness, hair color, and age) will provide the theoretical definitions for stereotypical role portrayals in this study. A panel of experts was utilized to establish stereotypical levels for these variables.

Method

In order to test the study's hypotheses that (1) female characters will not appear as frequently as male characters and (2) the network's target audience will determine the level of female stereotyping in television network programs, a content analysis was developed to quantify portrayals and to identify stereotyping in prime time television network programs. Like other content analytic research, this study objectively defined, categorized, and compared various aspects of a communication message, specifically female depictions in prime time network programming.

In Content Analysis: An Introduction to its Methodology, Klaus Krippendorff provides a definitive reference volume for content analytic research. In this text, Krippendorff defines content analysis as "a research technique for making replicable and valid inferences from data to their context" (1980, p. 21). To clarify the procedures for this method of research, Krippendorff details unitizing, sampling, and recording techniques. He also identifies reliability and validity tests appropriate to the research method. These guidelines, therefore, were carefully utilized in the current research study. Other texts describing content analyses methodology [Babbie (1995), Weber (1990), Holsti (1969), Budd, Thorp, & Donohew (1967)], provided additional references for the current work.

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[2] Representatives from each network were contacted directly in order to identify specific target audiences. Definitions of network target audiences, therefore, were based on network sources, popular and trade press articles.

Sampling

Promotional advertisements were videotaped for prime time network television programs broadcast Monday through Sunday from 8 PM to 11 PM on five networks (ABC, CBS, NBC, FOX, and UPN) in a mid-size, northeastern U. S. television market.[3] Because these promotional spots are designed to entice viewers, it is likely that the most exciting (and probably most stereotypical) content within the program will appear during these advertisements. It was assumed that networks were more likely to air these promotional spots during prime time; therefore, the 8 PM to 11 PM time period was chosen for the study. Promotional advertisements were recorded on consecutive evenings from September 11 to September 17, 1995. Due to the recent or imminent launch of the networks' new television season, this week was deemed particularly germane for the study as a time when networks would be heavily promoting their new programs.

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[3] The Warner Brothers Network has been excluded from this study for the reasons discussed previously. Due to the non-commercial nature of public television, the PBS affiliate was also excluded in the sample. Because a public television station does not target certain audiences in order to sell commercial advertising, it was deemed inappropriate for inclusion in the study.

Network promotional spots were defined as any advertisement that promotes a prime time network program. In order to avoid including syndicated and local programs within the sample, TV Guide's Fall Preview issue (Sept. 16, 1995) was used to identify the titles of network programs to be included in the study. All network promotional advertisements broadcast during this sample were content analyzed, coding female stereotyping within the promotional spots. Repeat promotional advertisements were coded as they appeared in the sample.

Operational Definitions

As stated previously, representatives from each network were contacted in order to identify specific target audiences. Network target audiences, therefore, have been defined by the networks themselves and confirmed through popular and trade press articles. During prime time, ABC, CBS, and NBC target an adult audience from 18 to 49 years of age. Prior to this year, FOX presented programs to appeal to a predominately younger, male audience. The FOX network is currently in a transitionary phase in an effort to expand its audience to more closely resemble the traditional three networks (e.g., adults aged 18 to 49). Modeling itself after FOX, UPN is initially pursuing a male audience between the ages of 18 and 34.

In order to identify potential sex stereotyping in the promotional spots coded, this study measured the proportional representation of women in major and minor character roles. The race and age of each character were also recorded to identify the diversity of portrayals between men and women. Characters' attire, in addition, was coded to determine whether female characters were more often portrayed in provocative dress than male characters. Based on the stereotypical assumption that female characters will be presented as more attractive and physically fit, these two characteristics were also coded. In order to replicate findings from a previous content analysis of prime time network programs (Davis, 1990), hair color was also identified to determine if female characters are more often portrayed as blondes than male characters.

In order to identify if certain program formats portray more females than males and vice versa, the genre of each program was coded (e.g., comedy, drama, news, etc.). If a voice-over announcer was utilized in the promotional spot, the gender of the announcer was coded to determine if male voices were more frequently used than female voices.

For each of the promotional advertisements coded in the study, therefore, stereotypical sex role portrayals were analyzed for the following characteristics: frequency of portrayal; character role (e.g., primary character, minor character); character race; apparent age; type of attire (e.g., provocative); physical attractiveness; physical fitness; and hair color. Promotional announcements were also coded for genre (e.g., drama, comedy, news program, etc.) and announcer (voice-over) gender. The coding instruction manual (Appendix A) provides the complete listing of operational definitions for each of these characteristics.

In order to classify certain variables coded in the content analysis as stereotypical, a panel of "experts" validated the level of stereotyping contained in each of the following variables: character attire, attractiveness, physical fitness, hair color, and age. A purposive sample of undergraduate, graduate, and faculty members at a communications school in the northeastern United States was asked to rank each variable indicator on a five-point Likert scale ranging from very stereotypical to not at all stereotypical. Results were then used to create an index of "stereotypicality" for each variable measured.

Coders and Inter-Coder Reliability

In order to train coders for this content analysis, the researcher developed a coding instruction manual detailing every aspect of coding procedures (Appendix A). Two coders received extensive pre-test training: studying the coding instruction book, perfecting individual understanding of each variable definition, and coding several sample programs in order to establish inter-coder reliability prior to coding the promotional advertisements for the main study. As a result of these pre-test coding sessions, the coding sheets were revised in order to perfect variable definitions and facilitate accurate coding. Holsti's coefficient of reliability ($\Sigma\ 2M / N_1 + N_2$) and Scott's pi[4] were calculated to determine an acceptable level of inter-coder reliability for the study (Holsti, 1969, p. 140). The statistical package SPSS Version 6.1 was utilized for statistical data analysis. Frequency distributions, cross tabulations, and analyses of variance were used for the statistical analysis of the data.

Results

A total of 811 promotional announcements and 969 characters were coded from the sample. Based on Holsti's coefficient of reliability, inter-coder reliability levels ranged

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[4] $$\text{pi} = \frac{\text{\% observed agreement - \% expected agreement}}{\text{1 - \% expected agreement}}$$

between .74 and .96, all within acceptable reliability standards. Scott's pi or index of reliability was computed for the five stereotyping variables, with an average value of .81.[5]

Table 1 provides percentage results for variables coded for all television networks. The predominant program formats were comedy (51.3%) and drama (27%). Male voices dominated as voice-over announcers comprising 95.7%; the remaining promotional advertisements featured no announcer (2.5%), both male and female announcers simultaneously (1.6%) or female announcers (0.2%).

The majority of characters were male (55.6%) and Caucasian (85.2%). The characters portrayed also tended more frequently to be young adults (61.7%) or middle-aged (30.7%). The majority of characters were shown in major roles (67.8%). Most of the variables measuring the level of stereotyping of characters tended to cluster around "neutral" or "average" values. The most frequently occurring category for character attire, for example, was neutral (63.2%), with somewhat unprovocative (16.9%) and somewhat provocative (13.6%) ranking second and third. The character attractiveness variable was mainly split between two categories: average (45.2%) and somewhat attractive (43.4%). The physical fitness of characters again heavily favored the average category (80.7%). Finally, the majority of characters' hair color was brown (47.5%), blonde (20.1%), and black (16.4%).

Crosstabulation results in Table 4 show that the majority of characters portrayed were white young adults, regardless of gender. Female characters were more likely to be coded in a major role (70.5%) than male characters. All characters were predominately classified in the neutral attire category, although more women were found in the somewhat provocative (24.0% for women, 5.4% for males) and very provocative (6.7% for women and 5.9% for males) categories. Female characters were also more likely to be somewhat attractive (57.2%) than male characters (32.5%). The majority of men (81.3%) and women (80.0%) were in average physical shape, although a larger percent of female characters (14.0%) were in somewhat good shape than male characters (2.2%). The predominate hair color among male characters was brown (64.2%) and blonde (38.8%) for female characters.

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[5] The Scott's pi reliability results for each variable were: promo format = .91, promo announcer gender = .92, character role = .83, character gender = .95, character race = .93, character age = .95, character attire = .87, character attractiveness = .67, character physical fitness = .72, character hair color = .82.

Crosstabulation results for female characters categorized by network representation is presented in Table 5. These findings have been reported without corresponding statistics due to the distinct nature of the results: Most of the crosstabulation tables yielded results with more than 20 percent of cells containing expected frequencies of less than five. Rather than collapse categories and recode variables to correct this problem, it was determined that the empty cells themselves provided significant results for analyses that would be lost if variables were recoded.

All networks portrayed predominately Caucasian characters. FOX portrayed the highest percentage of African-American women (26.7%), while ABC and UPN did not portray any African-American female characters.[6] Young adult was the most frequent age category for female characters on all networks except CBS, with half of its characters coded as middle-aged. ABC, CBS, and FOX were the only networks to portray female children (3.7%, 0.6%, and 12.0%, respectively) while ABC ranked heaviest on the elderly age category (15%). NBC, FOX, and UPN did not portray any elderly women characters.

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[6] Although 12% of female ethnic portrayals on FOX were coded in the "other" category, most of these represent cartoon characters (e.g., The Simpsons) of indeterminate race.

All television networks except FOX portrayed more women in major roles than minor ones. For the character attire variable, all of the networks most frequently portrayed characters dressed in neutral attire. FOX and UPN, however, more frequently portrayed female characters in very provocative dress (21.3% and 18.8%, respectively). No networks portrayed any female characters in the very unprovocative attire category. ABC and NBC were more likely to portray female characters as average in attractiveness (46.7% and 56.4%, respectively) compared to the somewhat attractive category for CBS (70.2%), FOX (69.3%), and UPN (62.5%). UPN and ABC ranked highest in very attractive female portrayals (15.6% and 12.1%, respectively), while CBS and NBC ranked highest in the somewhat unattractive portrayal category (6.2% and 5.5%). No networks portrayed any women in the very unattractive category.

For female characters' physical fitness, all networks most often portrayed average body types. FOX and UPN were the only networks to portray women who were very fit and ABC was the only network to portray females who were very unfit. All of the networks portrayed predominately blonde characters, although NBC portrayed almost equal numbers of blonde (36.4%) and brown-haired (34.5%) characters.

Two-way analyses of variance were run for all stereotypical variables coded. In order to assess the level of "stereotypicality" for these variables, a panel of experts consisting of 25 undergraduate, graduate, and faculty members at a communications school in the northeastern United States determined each variable's level of stereotyping

(Appendix C). Individuals who study mass communication and television were deemed more likely to be "experts" in the area of identifying stereotypical television portrayals of women. The purposive sample included approximately equal numbers of men and women within each age group. Values for each stereotypical variable were calculated by taking the mean response from the 25 experts (Table 6). For the variable character hair color, for example, the value "blonde" received a rating of 4.36 and the value "brown" was rated at 2.88. This permitted the five stereotyping variables (e.g., attire, attractiveness, age, physical fitness, and hair color)[7] to be used as the dependent measures in the analyses of variance (Figures 1 through 5).

Two-way analyses of variance of the stereotypical variables by network and character gender generated some interesting interactions. Figure 1 depicts stereotypical attire and demonstrates a clear two-way interaction between the veteran three networks and FOX and UPN. The two newer networks demonstrate much higher levels of stereotypical female attire portrayals than male compared to ABC, CBS, and NBC.

Figure 2 depicts a very similar relationship, with FOX and UPN ranking female characters higher on the attraction stereotype scale than males. The other three networks show more congruent portrayals among male and female characters. Figure 3 shows NBC and FOX as clearly depicting female characters' by stereotypical ages more than the other networks. Males on ABC actually ranked higher in stereotyping for this variable than women. UPN ranked both men and women highly (although men slightly higher than women).

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[7] An overall stereotypical index scale was also computed yielding a reliability coefficient standardized item alpha of .66, which was deemed too low for inclusion in the analysis.

ABC and CBS portrayed similar levels of fitness between female and male characters in Figure 4, while NBC demonstrated a tendency to depict females more stereotypically than male characters regarding physical fitness. The two newer networks, however, again portrayed the most striking divergence between male and female characters compared to the veteran networks. Both FOX and UPN rank females significantly higher than males for this stereotypical portrayal.

The hair color stereotype in Figure 5 was the only variable measured which demonstrated no interaction. Female characters consistently ranked higher than males for this stereotypical portrayal across all networks except UPN. The portrayal of females and males for stereotypical hair color was more comparable on UPN than the other networks.

Discussion

The "symbolic annihilation of women" described by Gaye Tuchman over 15 years ago in Hearth and Home (1978) appears to be alive and well in prime time television portrayals today. This content analysis of prime time television network promotional advertisements demonstrated that female characters are still significantly underrepresented compared to male characters. It is also surprising that television networks were more likely to use no voice-over announcer than female announcers. In fact, women are practically invisible in the role of announcer for every network. The first hypothesis that female characters will not appear as frequently as male characters, was supported. This finding demonstrates a persistent trend of women's underrepresentation on television, as evidenced in the work of Signorielli, McLeod, and Healy (1994), Davis (1990), Bretl and Cantor (1988), and many others.

Although not specifically hypothesized in this research, the role of minorities on prime time television may have faired even worse than women, with whites comprising well over three-fourths of all portrayals. African-Americans account for approximately ten percent, while all other races are almost non-existent. The "other ethnicity" category (comprising 3.4% of all characters coded) is somewhat misleading; it does not represent diversity in ethnic portrayal because it consists predominately of cartoon characters that did not represent any race. The fact that these "non-race" characters rank third in ethnic portrayals in prime-time programming is remarkable. These results are consistent with previous content analytic studies conducted by mass communication researchers and suggest that prime time television representations of minorities have not changed significantly in recent years.

Results showed some support for the study's second hypothesis, that the level of female stereotyping in television network programs depends on the network's target audience. FOX and UPN were predicted to depict more stereotypical portrayals of women in programming designed to target their predominately young, male audiences. Across all networks, female characters were generally portrayed in more provocative attire, as more attractive, and more physically fit than male characters. These findings directly support the previous work of Signorielli, McLeod, and Healy (1994) who also found that women on television were portrayed as more attractive, more provocatively dressed, and more physically fit than male characters. Women were also more likely than men to be blondes, which confirms a previous study conducted by Davis (1990). This study's results, therefore, support forty years of content analytic research describing female characters as consistently more stereotyped than male characters on television [Head (1954), DeFleur (1964), Tedesco (1974), Turow (1974), Signorielli (1989)]. Apparently, there has been little or no development in televised female portrayals despite suggestions to the contrary by network executives and the popular press.

The study's second hypothesis actually contributes a new dimension to the content analytic stereotyping literature by comparing female portrayals across five networks. When specifically analyzing FOX and UPN portrayals compared to the other three networks, crosstabulation results indicate that FOX was more likely to portray women in minor character roles, dressed in provocative attire, and more physically fit than the other networks. UPN was also more likely to depict women as more attractive, physically fit, and provocatively dressed than the three veteran networks.

The two-way interactions depicted in Figures 1 through 4 show clear support that FOX, and to a lesser extent UPN, depict females more stereotypically across the majority of variables tested. These results support the uses and gratifications approach defining audiences as choosing television content based upon perceived needs; television networks, subsequently, produce specific content in their programs in order to attract target audience members. With FOX and UPN targeting a younger, male audience, it is logical that these networks' portrayals of women will be somewhat more stereotypical than the other three networks that generally target male and female viewers between the ages of 18 and 49.

One key limitation of the current study concerns the sampling of promotional advertisements rather than entire prime time programs. Future research perhaps should not restrict analysis to promotional announcements. It is possible that the study's assumption that promotional announcements are more likely to contain more exciting (and more stereotypical) content than the programs themselves may have been an erroneous one. Future studies should analyze entire program content in order to replicate these findings.

Table 1. Percentages for promotional announcement variables.

Variables	%
Promo format	
Action Adventure	5.3
Comedy	51.3
Drama	27.0
News	3.7
Other	12.7
	100.0%
	(N=811)
Voice-over announcer gender	
Male	95.7
Female	0.2
Both	1.6
None	2.5
	100.0%
	(N=811)

Table 2. Percentages for character demographic variables.

Variables	%
Character sex	
Male	55.6
Female	44.4
	100.0%
	(N=969)
Character race	
Caucasian	85.2
African American	10.7
Hispanic	0.5
Asian	0.1
American Indian	0.0
Other	3.4
	100.0%
	(N=969)
Character role	
Major	67.8
Minor	32.2
	100.0%
	(N=969)

Table 3. Percentages for character stereotype variables.

Variables	%
Character age	
Child	3.1
Teenager	0.9
Young adult	61.7
Middle-aged	30.7
Elderly	3.6
	100.0%
	(N=969)
Character attire	
Very provocative	6.3
Somewhat provocative	13.6
Neutral	63.2
Somewhat unprovocative	16.9
Not provocative	0.0
	100.0%
	(N=969)
Character attractiveness	
Very attractive	4.5
Somewhat attractive	43.4
Average	45.2
Somewhat unattractive	6.8
Not attractive	0.0
	100.0%
	(N=969)
Character physical fitness	
In good shape	1.9
In somewhat good shape	7.4
Average	80.7
Somewhat out of shape	7.6
Very out of shape	2.4
	100.0%
	(N=969)
Character hair color	
Brown	47.5
Black	16.4
Blonde	20.1
Red/Auburn	10.6
Gray/White	3.5
Bald	0.9
Other	0.9
	100.0%
	(N=969)

Table 4. Crosstabulation of character variables by gender.

Variable	Gender Male	Female
Character race		
Caucasian	81.1	90.5
African American	14.3	6.3
Other	4.6	3.3
	100.0% (N=539)	100.0% (N=430)

$X^2 = 17.90$, df = 2, $p < .001$
Cramer's V = .14

Variable	Male	Female
Character age		
Child	3.0	3.3
Teenager	1.1	0.7
Young adult	62.7	60.5
Middle-aged	30.1	31.4
Elderly	3.2	4.2
	100.0% (N=539)	100.0% (N=430)

$X^2 = 1.55$, df = 4, ns
Cramer's V = .04

Variable	Male	Female
Character role		
Major	65.7	70.5
Minor	34.3	29.5
	100.0% (N=539)	100.0% (N=430)

$X^2 = 2.52$, df = 1, ns
Cramer's V = .05

Table 4 (continued). Crosstabulation of character variables by gender.

Variable	Male	Female
Character attire		
Very provocative	5.9	6.7
Somewhat provocative	5.4	24.0
Neutral	63.6	62.6
Somewhat unprovocative	25.0	6.7
Not provocative	0.0	0.0
	100.0% (N=539)	100.0% (N=430)

$X^2 = 108.20$, df = 3, $p < .001$
Cramer's V = .33

Variable	Male	Female
Character attractiveness		
Very attractive	2.2	7.4
Somewhat attractive	32.5	57.2
Average	55.5	32.3
Somewhat unattractive	9.8	3.0
Unattractive	0.0	0.0
	100.0% (N=539)	100.0% (N=430)

$X^2 = 92.67$, df = 3, $p < .001$
Cramer's V = .31

Variable	Male	Female
Character physical fitness		
In good shape	2.2	1.4
In somewhat good shape	2.2	14.0
Average	81.3	80.0
Somewhat out of shape	11.9	2.3
Very out of shape	2.4	2.3
	100.0% (N=539)	100.0% (N=430)

$X^2 = 73.77$, df = 4, $p < .001$
Cramer's V = .28

Table 4 (continued). Crosstabulation of character variables by gender.

Variable	Male	Female
Character hair color		
Brown	64.2	26.5
Black	20.4	11.4
Blonde	5.2	38.8
Red/Auburn	1.7	21.9
Other	8.5	1.4
	100.0% (N=539)	100.0% (N=430)

$X^2 = 332.35$, df = 4, $p < .001$
Cramer's V = .59

Table 5. Crosstabulation of female characters by network.

Variable	ABC	CBS	NBC	FOX	UPN
Character race					
Caucasian	100.0	96.3	94.5	61.3	90.6
African American	0.0	2.5	5.5	26.7	0.0
Other	0.0	1.2	0.0	12.0	9.4
	100.0% (N=107)	100.0% (N=161)	100.0% (N=55)	100.0% (N=75)	100.0% (N=32)
Character age					
Child	3.7	0.6	0.0	12.0	0.0
Teenager	1.9	0.6	0.0	0.0	0.0
Young adult	47.7	46.6	85.5	88.0	65.6
Middle-aged	31.8	50.9	14.5	0.0	34.4
Elderly	15.0	1.2	0.0	0.0	0.0
	100.0% (N=107)	100.0% (N=161)	100.0% (N=55)	100.0% (N=75)	100.0% (N=32)
Character role					
Major	83.2	73.3	81.8	42.7	59.4
Minor	16.8	26.7	18.2	57.3	40.6
	100.0% (N=107)	100.0% (N=161)	100.0% (N=55)	100.0% (N=75)	100.0% (N=32)
Character attire					
Very prov.	0.0	2.5	5.5	21.3	18.8
Somewhat prov.	25.2	21.7	16.4	34.7	18.8
Neutral	73.8	65.8	72.7	40.0	43.8
Somewhat unprov.	0.9	9.9	5.5	4.0	18.8
Very unprov.	0.0	0.0	0.0	0.0	0.0
	100.0% (N=107)	100.0% (N=161)	100.0% (N=55)	100.0% (N=75)	100.0% (N=32)

Table 5 (continued). Crosstabulation of female character variables by gender.

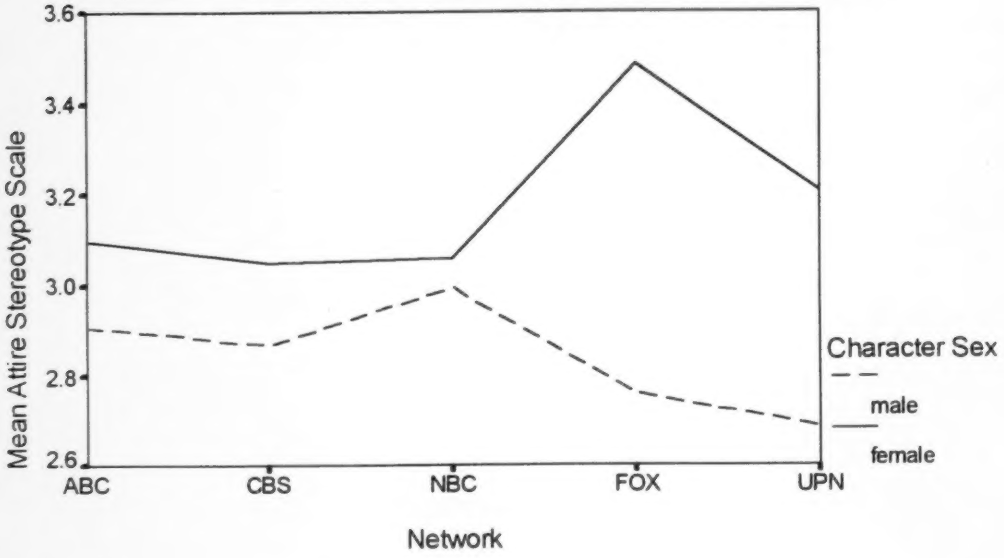
Variable	ABC	CBS	NBC	FOX	UPN
Character attractiveness					
Very attract.	12.1	2.5	7.3	8.0	15.6
Somewhat attract.	41.1	70.2	30.9	69.3	62.5
Average	46.7	21.1	56.4	22.7	21.9
Somewhat unattract.	0.0	6.2	5.5	0.0	0.0
Very unattract.	0.0	0.0	0.0	0.0	0.0
	100.0% (N=107)	100.0% (N=161)	100.0% (N=55)	100.0% (N=75)	100.0% (N=32)
Character fitness					
Very fit	0.0	0.0	0.0	1.3	15.6
Somewhat fit	7.5	7.5	16.4	36.0	12.5
Average	81.3	90.7	83.6	61.3	59.4
Somewhat unfit	1.9	1.9	0.0	1.3	12.5
Very unfit	9.3	0.0	0.0	0.0	0.0
	100.0% (N=107)	100.0% (N=161)	100.0% (N=55)	100.0% (N=75)	100.0% (N=32)
Character hair color					
Brown	31.8	28.0	34.5	12.0	21.9
Black	7.5	9.3	5.5	21.3	21.9
Blonde	43.0	36.0	36.4	38.7	43.8
Red/Auburn	17.8	26.7	23.6	25.3	0.0
Other	0.0	0.0	0.0	2.7	12.5
	100.0% (N=107)	100.0% (N=161)	100.0% (N=55)	100.0% (N=75)	100.0% (N=32)

Table 6. Mean expert rating for character stereotype variables.

Variables	Mean expert rating of stereotype*
Character attire	
Very provocative	4.28
Somewhat provocative	3.88
Neutral	2.84
Somewhat unprovocative	2.32
Not provocative	2.52
Character attractiveness	
Very attractive	4.52
Somewhat attractive	3.80
Average	2.84
Somewhat unattractive	2.60
Not attractive	2.68
Character age	
Child	2.76
Teenager	3.60
Young adult	4.28
Middle-aged	3.28
Elderly	2.40
Character physical fitness	
In good shape	4.32
In somewhat good shape	3.84
Average	3.04
Somewhat out of shape	2.52
Very out of shape	2.96
Character hair color	
Brown	2.88
Black	2.72
Blonde	4.36
Red/Auburn	3.32
Gray/White	2.36

*Scale was coded: 1 = not at all stereotypical, 2 = somewhat not stereotypical, 3 = neutral, 4 = somewhat stereotypical, 5 = very stereotypical.

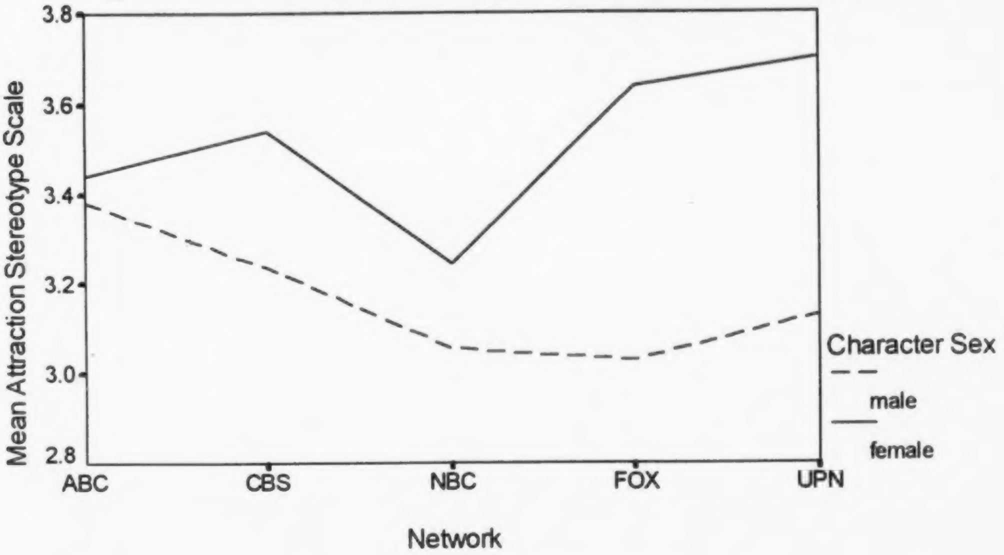
Figure 1. Stereotypical Attire by Network and Gender.



Main effects:
Network, F = 3.94, df = 4, 959, p < .01
Gender, F = 82.33, df = 1, 959, p < .001

Interaction:
Network by gender, F = 12.31, df = 4, 959, p < .001

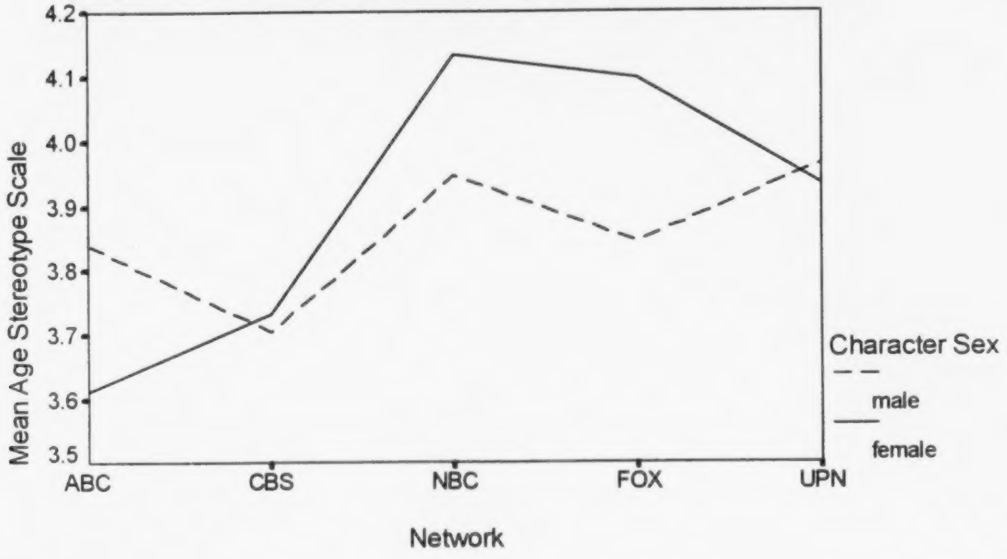
Figure 2. Stereotypical Attraction by Network and Gender.



Main effects:
Network, F = 6.77, df = 4, 959, p < .001
Gender, F = 81.97, df = 1, 959, p < .001

Interaction:
Network by gender, F = 9.69, df = 4, 959, p < .001

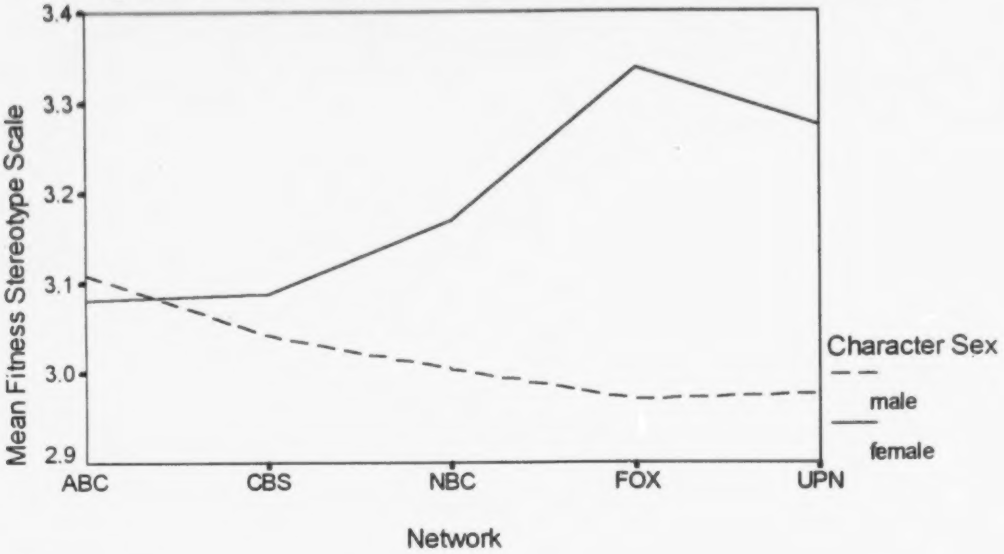
Figure 3. Stereotypical Age by Network and Gender.



Main effects:
Network, F = 11.39, df = 4, 959, p < .001
Gender, F = .57, df = 1, 959, ns

Interaction:
Network by gender, F = 5.85, df = 4, 959, p < .001

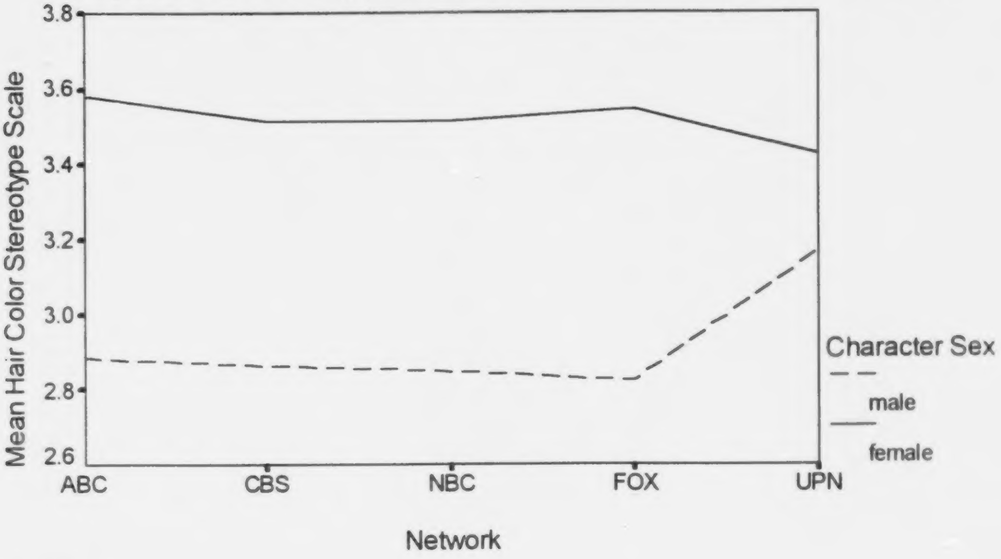
Figure 4. Stereotypical Fitness by Network and Gender.



Main effects:
Network, F = 1.98, df = 4, 959, ns
Gender, F = 51.34, df = 1, 959, p < .001

Interaction:
Network by gender, F = 14.56, df = 4, 959, p < .001

Figure 5. Stereotypical Hair Color by Network and Gender.



Main effects:

Network, F = 3.30 df = 4, 941, p < .05

Gender, F = 307.19, df = 1, 941, p < .001

Interaction:

Network by gender, F = 3.37, df = 4, 941, ns

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Appendix A

Content Analysis Coding Instructions

Program Code Sheet Instructions

Code all television program promotional announcements for prime time network programs that appear on the videotape between 8 PM and 11 PM (refer to D. below for timing instructions). Do not code promos for any shows that are not prime time (e.g., do not code promos for local or network news, talk shows like Dave Letterman or Oprah, daytime soap opera and the like).

Complete one program code sheet for each promotional spot coded.

The following represent some unique promotional spots and how to treat them:
1. "Split Promo" - a promo where two shows are advertised simultaneous with cuts between characters from each show -- code with two program code sheets for each show represented and then match the characters with the show they belong to.
2. "Montage Promo" - a promo where images from a dozen or so shows are cut together into one ad -- code each show that is mentioned on an individual program code sheet and then code only those characters that clearly belong to that show and meet the coding restrictions (10 seconds on the screen and/or at least three spoken words).
3. "Nestled Promo" - if promo is edited into the credits of a program (e.g., a split screen or box is used to broadcast the program's credits and a promo at the same time) do not code the promo. If the promo is cut in between an advertisement (e.g., TV Guide has a contest and shows a promo of a network show during its TV Guide ad), then don't code the promo. Only code promos that stand alone and are not part of some other format (e.g., credits or advertisement).

A. Match the program title with the code numbers listed on pages 5 through 8 of this instruction book. Write the code number of the promotional spot's program title in the space provided.

B. Match the television station network and call letters listed on the videocassette tape you are coding from with the station network and call letters provided on the program code sheet.

C. Match the day of week listed on the videocassette tape you are coding from with the day of week provided on the program code sheet.

D. When you first place videocassette tape in videocassette machine, tape will be cued up to 8 PM. Zero out the machine's timer and indicate the time each promotional aired based upon the timer reading at the start of the promotional spot.

E. Define program format categories by the following:
1 Action Adventure - main theme of program is based upon characters that physically explore and move about in their environment (e.g., westerns, police shows, science fiction adventure shows, etc.).

2 Comedy - main theme of program is based upon comic dialogue and situations (e.g., situation comedies).
3 Drama - main theme of program is dramatized serious fictional content (e.g., programs dealing with court drama, family drama, etc.).
4 News - main theme of program is factual reporting of the news (e.g., news magazine programs like 20/20 and 60 Minutes.).
5 Other - for any type of format not included above, indicate program format in space provided.

F. Identify the gender of voice-over announcer (voice whose image is never visually presented) as male or female. If the announcer's voice is computer generated or some other non-gender source, then code as other. If no voice-over occurs during the program, then code as none.

Character Descriptive Code Sheet Instructions

Code all characters that are depicted for at least ten seconds and/or speak at least three words during the 30 second promotional spot. Do not code characters in instances where you think that characters may have spoken but announcer's voice drown them out (if you cannot clearly identify the character and the voice -- do not guess). Code a character with a "detached voice" (e.g., voice is heard without seeing a face speak) only if you are sure that the voice and body go together).

Compete one character descriptive code sheet for each character to be coded.

A. Character number: code two digit program number first (listed on pages 5 through 8 of this instruction book) followed by a two-digit character number you will systematically assign to each character (starting at 01). Do not repeat assigned numbers; each character will have a unique number assigned to it.

B. Character name or description: list any formal name and/or nickname of the character or list a description of the character if the name is not identifiable.

C. Character Role
1 Major - major characters share the majority of dialogue during the promotional spot, play the largest role in the dramatic action, and appear on the screen for the longest period of time during the spot.
2 Minor - minor characters have less or no dialogue, play a less significant role in the dramatic actions, and appear on the screen for a shorter period of time than major characters during the spot. For ensemble cast shows (e.g., ER, Central Park West, Chicago Hope), code all characters as minor because all are equally supporting roles to each other.

D. Gender
1 Male
2 Female

E. Ethnicity
1 Caucasian
2 African American
3 Hispanic
4 Asian
5 American Indian
6 Other - for any race not included above, indicate race in space provided.

F. Approximate Age
1 Child (approx. 0 to 13 years of age)
2 Teenager (approx. 13 to 19 years of age)
3 Young adult (approx. 20 to 39 years of age)

4 Middle-aged adult (approx. 40 - 60 years of age)
5 Elderly adult (approx. 60 years or older)
6 Indeterminate (use this category sparingly -- estimate from above 6 categories if possible.

G. Provocative Attire

1 Very provocative - character's clothing is scanty or sexy, exposing a generous amount of skin and/or is extremely tight-fitting (e.g., partially exposed cleavage, extremely short "mini" skirt).
2 Somewhat provocative - character's clothing is moderately scanty or sexy, exposing a moderate amount of skin and/or is somewhat tight-fitting (e.g. bare shoulders, somewhat short skirt).
3 Neutral - character's clothing is "average" (exhibiting no distinguishable characteristics that would place it in the provocative or conservative category; child usually coded here).
4 Somewhat not provocative - character's clothing is classically conservative (e.g., bland business suit or military uniform -- note: business suits do not include blazer and blouse on women, men with no tie, or men with tie and no coat -- characters must be wearing entire suit with coat and tie to meet #4 criteria).
5 Not provocative - character's clothing covers the majority of the body at a level considered prudish (e.g., shirt buttoned up to neck without tie or suit).

H. Attractiveness

1 Very attractive - character's facial features are strikingly attractive or beautiful (e.g., character is striking with "movie star" looks). (Note: if you see only part of a face, code as attractive if the lips or nose is attractive.)
2 Somewhat attractive - character's facial features are above average in attractiveness or beauty (e.g., character is attractive or "cute" but not striking).
3 Average - character's facial features exhibit no distinguishable characteristics that would place it in the attractive or unattractive categories (e.g., character is "normal" looking -- not attractive or unattractive; child usually coded here).
4 Somewhat unattractive - character's facial features are somewhat ugly or homely (e.g., character has unattractive trait like large nose).
5 Very unattractive - character's facial features are ugly or homely (e.g., overall facial appearance is ugly with many homely attributes).

I. Body Type/Physical Fitness

1 In good shape - character's body appears to be very muscular and toned (e.g., actually see large size muscles or extremely toned or rippled muscles).
2 In somewhat good shape - character's body appears to be somewhat muscular and toned (e.g., clothes are tight enough to display firm body underneath).
3 Average - character's body is not overweight but does not show obvious indications of toned muscles (e.g., clothes give appearance that body is thin but

non-descript in muscle tone; child usually coded here).

4 Somewhat out of shape - character's body is somewhat overweight and flabby (e.g., character has "bulge" around stomach area but otherwise not fat).

5 Very out of shape - character's body is very overweight and flabby (e.g., character is obese).

J. Hair Color - chose the predominate hair color of the character from the list provided (e.g., if a character has black hair with a little gray, categorize as black). If hair color of the character is not apparent (e.g., character's hair is covered with hat), then list as indeterminate.

1 Brown
2 Black
3 Blonde
4 Red/Auburn
5 Gray/White
6 Bald
7 Other (SPECIFY ____________________________)

Program Coding Numbers

ABC

Saturday
001 - The Jeff Foxworthy Show
002 - Maybe This Time
003 - ABC Family Movie (Encino Man)
108 - ABC Family Movie (Great Mom Swap)

Sunday
004 - America's Funniest Home Videos
005 - Lois & Clark
006 - ABC Sunday Night Movie (Stranger Beside Me)
109 - ABC Sunday Night Movie (Lethal Weapon III)

Monday
007 - The Marshall
008 - ABC's NFL Monday Night Football
Tuesday
009 - Roseanne
010 - Hudson Street
011 - Home Improvement
012 - Coach
013 - NYPD Blue
Wednesday
014 - Ellen
015 - The Drew Carey Show
016 - Grace Under Fire
017 - The Naked Truth
018 - PrimeTime Live
Thursday
112 - Day One
019 - Charlie Grace
020 - The Monroes
021 - Murder One
Friday
022 - Family Matters
023 - Boy Meets World
024 - Step By Step
025 - Hangin' With Mr. Cooper
026 - 20/20

CBS
Additionals
102 - Her Deadly Rival

103 - Too Hot to Skate
104 - Whose Daughter is She?
113 - Color Me, Barbra
114 - Sneak Peak
Saturday
027 - Dr. Quinn, Medicine Woman
028 - Touched By An Angel
029 - Walker, Texas Ranger
Sunday
030 - 60 Minutes
031 - Cybill
032 - Almost Perfect
033 - CBS Sunday Night Movie
Monday
034 - The Nanny
035 - Can't Hurry Love
036 - Murphy Brown
037 - If Not For You
038 - Chicago Hope
Tuesday
039 - John Grisham's The Client
040 - CBS Tuesday Night Movie (The Secretary)
Wednesday
041 - Bless This House
042 - Dave's World
043 - Central Park West
044 - Courthouse
Thursday
045 - Murder, She Wrote
046 - New York News
047 - 48 Hours
Friday
048 - Dweebs
049 - Bonnie Hunt
050 - Picket Fences
051 - American Gothic

Fox
Saturday
052 - Martin
053 - The Preston Episodes
054 - Cops
055 - America's Most Wanted
Sunday
056 - Space: Above and Beyond

057 - The Simpsons
058 - Too Something
059 - Married With Children
060 - Misery Loves Company
105 - Fox Football -- NFL Sunday
Monday
061 - Melrose Place
062- Partners
063 - Ned and Stacey
106 - Emmy Awards Special
Tuesday
064 - The Fox Tuesday Night Movie (Divas)
116 - The Fox Tuesday Night Movie (In the Name of Love)
Wednesday
065 - Beverly Hills, 90210
066 - Party of Five
Thursday
067 - Living Single
068 - The Crew
069 - New York Undercover
Friday
070 - Strange Luck
071 - The X-Files

NBC
Saturday
072 - JAG
073 - The John Larroquette Show
074 - The Home Court
075 - Sisters
Sunday
076 - Brotherly Love
077 - Minor Adjustments
078 - Mad About You
079 - Hope & Gloria
080 - NBC Sunday Night at the Movies (Zoya)
110 - NBC Sunday Night at the Movies (Unspoken Truth)
107- Miss America Pageant
Monday
081 - Fresh Prince
082 - In the House
083 - NBC Monday Night Movie (Various/multiple movie promo)
111 - NBC Monday Night Movie (Beauty's Revenge)
117 - NBC Monday Night Movie (Thelma and Louise)

Tuesday
084 - Wings
085 - NewsRadio
086 - Fraiser
087 - The Pursuit of Happiness
088 - Dateline NBC
Wednesday
089 - seaQuest DSV
090 - Law and Order
Thursday
091 - Friends
092 - The Single Guy
093 - Seinfeld
094 - Caroline in the City
095 - ER
Friday
096 - Unsolved Mysteries
097 - Homicide: Life in the Streets

UPN
Monday
098 - Star Trek: Voyager
099 - Nowhere Man
Tuesday
100 - Deadly Games
101 - Live Shot
Saturday
115 - UPN Movie (There Goes the Neighborhood)

Appendix B

Content Analysis Coding Instrument

Program Code Sheet

A. Program code (code the number of the promotional spot's program title as listed on pages 5-8 in the coding instruction book) ____________

B. Station code
1 ABC - WIXT (Channel 9)
2 CBS - WTVH (Channel 5)
3 FOX - WSYT (Channel 68)
4 NBC - WSTM (Channel 3)
5 UPN - WSNR (Channel 43) ____________

C. Day of Week Promotional Spot Aired
1 Monday
2 Tuesday
3 Wednesday
4 Thursday
5 Friday
6 Saturday
7 Sunday ____________

D. Time Promotional Spot Aired
1 7 PM - 7:59 PM
2 8 PM - 8:59 PM
3 9 PM - 9:59 PM
4 10 PM - 10:59 PM ____________

E. Program Format
1 Action Adventure
2 Comedy
3 Drama
4 News
5 Other (SPECIFY ______________________________) ____________

F. Gender of Voice-Over Announcer
1 Male
2 Female
3 No Announcer
4 Other (SPECIFY ______________________________) ____________

Character Descriptive Code Sheet

A. Character number ____________

B. Character name or description ____________________

C. Character Role
1 Major
2 Minor ____________

D. Gender
1 Male
2 Female ____________

E. Ethnicity
1 Caucasian
2 African American
3 Hispanic
4 Asian
5 American Indian
6 Other (SPECIFY ____________________________) ____________

F. Approximate age
1 Child
2 Teenager
3 Young adult
4 Middle-aged adult
5 Elderly adult
6 Indeterminate ____________

G. Provocative Attire
1 Very provocative
2 Somewhat provocative
3 Neutral
4 Somewhat unprovocative
5 Not provocative ____________

H. Attractiveness
1 Very attractive
2 Somewhat attractive
3 Average
4 Somewhat unattractive
5 Very unattractive ____________

I. Body Type/Physical Fitness
1 In good shape
2 In somewhat good shape
3 Average
4 Somewhat out of shape
5 Very out of shape ____________

J. Hair Color
1 Brown
2 Black
3 Blonde
4 Red/Auburn
5 Gray/White
6 Bald
7 Other (SPECIFY ____________________________) ____________

Appendix C

Stereotyping Expert Questionnaire

Stereotyping has been defined as making broad generalizations about a group of people based on a very narrow assumption about that group's role or identity in society. Seeing certain groups of people performing stereotypical activities may cause reinforcement of these stereotypes. For example, seeing women on television as always in a traditional, domestic role in the home may support the stereotype that "a woman's place is in the home." Or seeing young, attractive women on television who seem to decorate the program more than advance the plot may reinforce the stereotype of women as "sex object."

Listed below are various ways to describe female television characters. For each question, give your opinion if this description is:

1 = not at all stereotypical
2 = somewhat not stereotypical
3 = neutral
4 = somewhat stereotypical
5 = very stereotypical

The way the female character is generally dressed:

Very Provocative	1	2	3	4	5
Somewhat Provocative	1	2	3	4	5
Average	1	2	3	4	5
Somewhat Unprovocative	1	2	3	4	5
Not Provocative	1	2	3	4	5

KEY:

1 = not at all stereotypical

2 = somewhat not stereotypical

3 = neutral

4 = somewhat stereotypical

5 = very stereotypical

The general attractiveness of the female character:

Very Attractive	1	2	3	4	5
Somewhat Attractive	1	2	3	4	5
Average	1	2	3	4	5
Somewhat Unattractive	1	2	3	4	5
Very Unattractive	1	2	3	4	5

How physically fit the female character generally is:

In good shape	1	2	3	4	5
In somewhat good shape	1	2	3	4	5
Average	1	2	3	4	5
Somewhat out of shape	1	2	3	4	5
Very out of shape	1	2	3	4	5

KEY:

1 = not at all stereotypical

2 = somewhat not stereotypical

3 = neutral

4 = somewhat stereotypical

5 = very stereotypical

The hair color of the female character generally is:

Brown	1	2	3	4	5
Black	1	2	3	4	5
Blonde	1	2	3	4	5
Red/Auburn	1	2	3	4	5
Gray	1	2	3	4	5

Age or how old the female character generally is:

Child	1	2	3	4	5
Teenager	1	2	3	4	5
Young Adult	1	2	3	4	5
Middle Aged	1	2	3	4	5
Elderly	1	2	3	4	5